HHD Lake Okeechobee

August 2007

LiDAR SUPPORT

SURVEY JOB# E07-066

BROWARD, GLADES, HENDRY, MARTIN,
OKEECHOBEE AND PALM BEACH COUNTIE'S,
FLORIDA

Gustin, Cothern, & Tucker, Inc.
121 Hart Street
Niceville, Florida 32578
(800) 392-3578

Florida Department of Emergency Management (FDEM)
LiDAR Support

LiDAR Support
Broward, Glades, Hendry, Martin, Okeechobee, and Palm Beach, Counties Florida
August of 2007

Prime Contractor:

Merrick Inc.
2450 S. Peoria St.
Aurora, Colorado 80014
Tel: (303) 751-0741
Toll Free: 1-800-544-1714
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Sub Contractors:

Gustin, Cothern & Tucker, Inc.
121 Hart Street
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1 ~ Survey Summary – HHD-LAKE OKEECHOBEE AREA ~ 1

LiDAR SUPPORT BROWARD, GLADES, HENDRY, MARTIN, OKEECHOBEE AND PALM COUNTIES, FLORIDA SURVEY SUMMARY

In mid August of 2007, GCT Inc received the contract requirements to perform LiDAR support for Merrick and Company. The contract requirements included establishment, location and documentation of 500 photo-identifiable (photo –id) checkpoints and vertical accuracy check (ground truthing) points spread out over approximately 2,263 square miles. In addition to the establishment of the required points, GCT Inc was also tasked with providing GPS support for the data acquisition by manning pre-determined ground station control points during actual flight times. To best accomplish these tasks, multiple field crews and support personnel were assigned to the project, with specific tasks set to each.

To begin the main photo control network, William Wright and crew started with the reconnaissance of existing horizontal and vertical control in and around the project area. In addition to recon, Wright and crew were tasked with setting the photo-id points as near as possible to the locations provided by Merrick. Due to poor GPS "windows" and/or poor access at much of the recovered vertical control monumentation, Wright and crew also transferred elevations to set photo-id points or newly set monumentation to achieve the necessary density needed for the establishment of the Primary Control Network. Digital photos and point description sketches of each photo-id point were also collected at this time. With all photo-id points set, additional personnel were mobilized to perform the static GPS observations. The primary control network GPS data collection was performed using eight Trimble dual frequency GPS receivers running simultaneously for a minimum of 30 minutes per session.

The Urban area, open terrain, and bare ground vertical check points were set and locations determined by Jason Tucker and crew. Static GPS techniques were employed in the location of these points, with ties made to the primary control network. The average static session was performed for approximately 20 minutes on these points.

The Forest and Mature crop areas of the project made the use of static GPS techniques nearly impossible. As a result of this, Chad Evans and crew, with help from Will Wright and crew, utilized Real Time Kinematic (RTK) GPS to establish accurate positional information on the ground truthing points in these areas.

TRIMBLE GPS EQUIPMENT LISTING

RECEIVER	PART #	SERIAL #	ANTENNA	SERIAL #
R8 GNSS	60158-66	4629119324	INTEGRATED	N/A
R8 GNSS	60158-66	4629118920	INTEGRATED	N/A
R8 GNSS	60158-66	4629119319	INTEGRATED	N/A
R8 GNSS	60158-66	4629119338	INTEGRATED	N/A
R8 (5800)	50158-66	4627118138	INTEGRATED	N/A
R8 (5800)	50158-66	4627118134	INTEGRATED	N/A
R8 (5800)	50158-66	4627118310	INTEGRATED	N/A
R8 (5800)	50158-66	4513148893	INTEGRATED	N/A
R8 (5800)	50158-66	5418150274	INTEGRATED	N/A
R7	50157-00	0220337267	ZEPHYR GEODETIC	12368787
R7	50157-00	0220346379	ZEPHYR GEODETIC	60100962
R7	50157-00	0220380002	ZEPHYR GEODETIC	60121048
R7	50157-00	0220363683	ZEPHYR GEODETIC	12635782
5700	40406-46	0220262361	ZEPHYR GEODETIC	60052064
5700	40406-46	0220242196	ZEPHYR GEODETIC	12534174
5700	40406-46	0220288348	ZEPHYR GEODETIC	12282100
5700	40406-46	0220288379	ZEPHYR GEODETIC	12322686
5700	40406-46	0220357280	ZEPHYR GEODETIC	UNKNOWN
5700	40406-46	0220294095	ZEPHYR GEODETIC	UNKNOWN
5700	40406-46	0220293412	ZEPHYR GEODETIC	UNKNOWN

Thank You,

Horace "Wayne" Walker, Jr. PLS
Vice President-Surveying
Gustin, Cothern, & Tucker, Inc.
(800) 392-3578 x21 (Toll Free)
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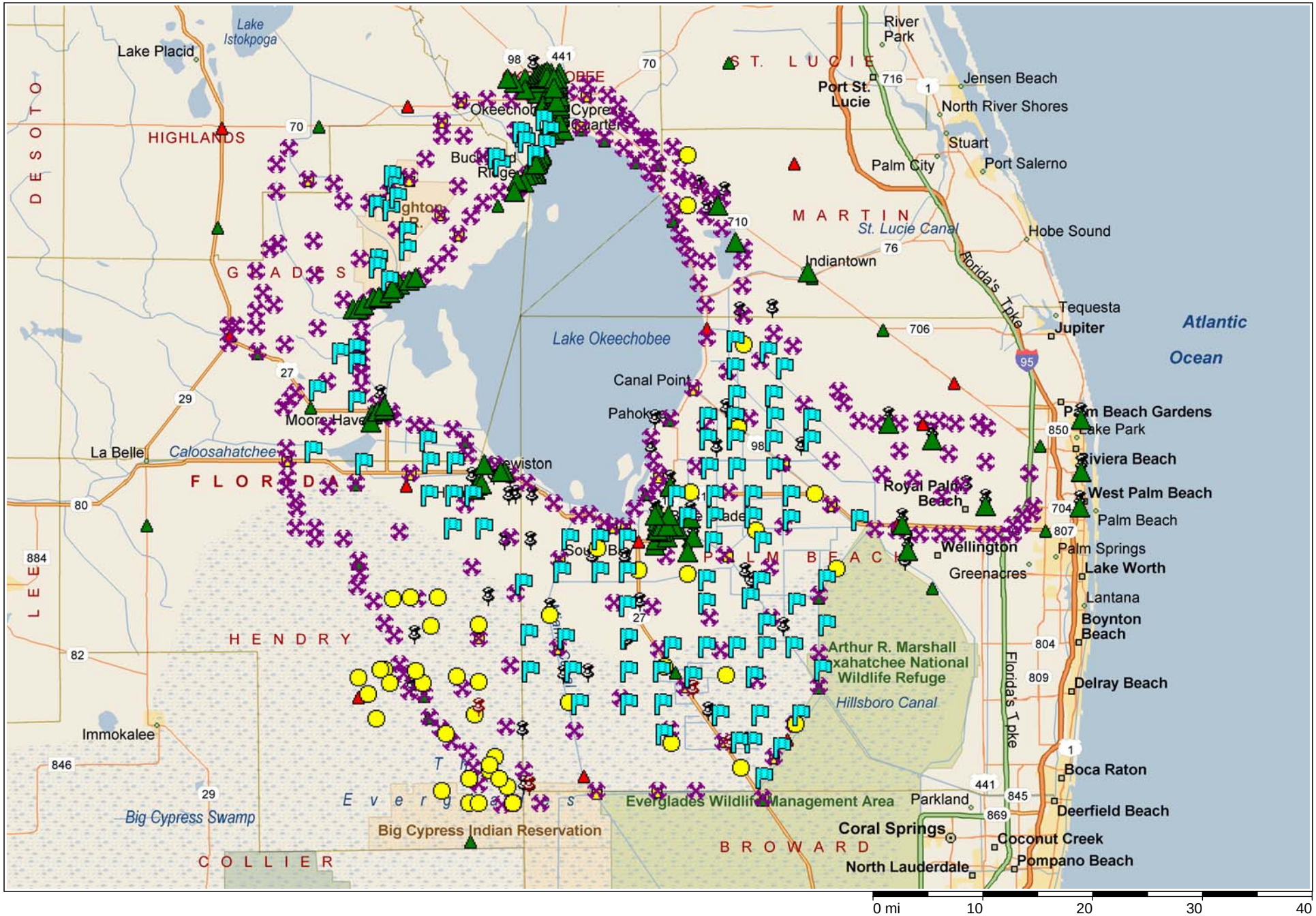
Dated: July 17, 2008

VICINTY MAP OF JOB



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2 ~ COORDINATE TABLE – HHD-LAKE OKEECHOBEE AREA ~ 2

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Control Points							
872 2625 1	26º 39' 48.66429"	080º 42' 44.93606"	-18.929	258155.952	228620.379	6.059	FBD USC&GS
A 518	27º 12' 26.16974"	081º 19' 44.24947"	16.489	318411.989	167411.179	41.515	FDR CERP
A 524	26º 53' 43.91516"	081º 07' 18.67723"	-14.373	283835.218	187894.867	10.351	FCM CERP
AIRPORT (BS)	26º 44' 15.66909"	081º 03' 17.87453"	-19.006	266342.151	194532.160	5.590	FDR NGS
B 529	27º 12' 34.07300"	081º 11' 09.07967"	-15.786	318626.115	181588.303	9.691	FCM CERP
B 548	26º 47' 17.65025"	080º 07' 10.86697"	-21.024	272244.699	287535.525	5.510	FDR CERP
BRIDGE 2	26º 33' 57.49054"	080º 50' 31.94765"	-18.997	247325.941	215720.426	5.841	FCM NGS
C 358	27º 14' 11.06574"	081º 03' 14.29810"	-16.554	321598.848	194654.607	9.485	FDR NGS
C 414	26º 41' 40.62379"	080º 46' 22.23954"	-13.165	261589.473	222605.602	11.809	FDR NGS
C 519	26º 51' 23.06175"	081º 22' 30.38541"	-14.606	279549.558	162723.651	9.821	FDR CERP
C 547	26º 59' 09.86359"	080º 24' 56.68355"	-19.302	293995.187	257994.449	7.333	FCM CERP
C T2	27º 17' 40.46898"	080º 34' 45.27241"	-18.603	328112.862	241650.654	8.416	FCM NGS
CORNER AZ	26º 19' 50.93136"	080º 52' 24.64457"	-17.287	221269.963	212627.236	7.517	FCM USC&GS
D 537	26º 37' 34.16920"	080º 19' 12.14889"	-18.081	254164.649	267707.935	7.459	FCM CERP
EDN 6 25	27º 00' 41.60022"	080º 27' 20.35370"	-17.659	296800.930	254020.801	8.973	FBD USE
FDEM-BC1 (BS)	26º 19' 33.46839"	080º 59' 23.15529"	-19.089	220726.415	201021.764	5.722	SCIR GCT
FDEM-BC2	26º 19' 32.14456"	080º 58' 44.26748"	-19.671	220685.806	202100.194	5.141	SCIR GCT
FDEM-PB1 (BS)	26º 43' 24.17467"	080º 39' 52.62569"	-21.437	264800.106	233367.494	3.713	SAD GCT
FDEM-PS5	26º 41' 00.87640"	080º 22' 06.69963"	-18.169	260501.622	262848.257	7.411	SCIR GCT
FDEM-S7	26º 20' 08.08309"	080º 32' 10.72182"	-16.931	221874.703	246288.316	7.992	SAD GCT
FISH	26º 56' 01.68830"	081º 18' 54.44336"	-13.617	288108.561	168705.939	10.903	FBD NGS
FLGPS 57 (BS)	26º 58' 40.50799"	081º 06' 39.55348"	-20.383	292962.375	188982.483	4.570	FDR NGS
FLGPS 67	26º 52' 19.63861"	080º 14' 43.55837"	-20.140	281458.826	274975.888	6.374	FDR NGS
FLGPS 69	26º 24' 13.26861"	080º 29' 30.41036"	-19.219	229437.002	250704.019	5.799	FDR NGS
G 489	26º 48' 48.07643"	080º 41' 13.99779"	-18.441	274762.855	231094.138	6.900	FDR NGS
H 547	26º 56' 35.13742"	080º 21' 05.34982"	-18.989	289264.171	264397.577	7.545	FDR CERP
K 413 (BS)	26º 41' 04.28231"	080º 19' 51.83211"	-21.062	260625.448	266576.389	4.583	FDR NGS
K 518	27º 04' 34.90070"	081º 20' 06.19195"	12.976	303908.929	166768.655	37.668	FDR CERP

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

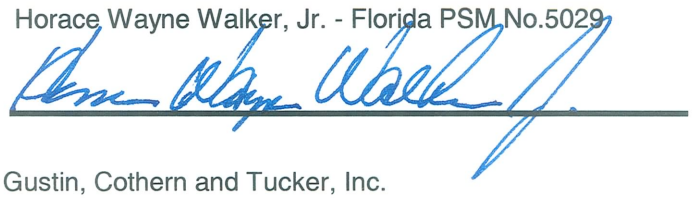
Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Control Points							
K 523	27º 06' 23.16391"	080º 55' 17.19877"	-16.091	307199.188	207789.246	10.025	FCM CERP
L 048	27º 05' 10.08514"	080º 39' 40.20978"	-16.113	304992.825	233603.073	10.432	FBD SFWMD
LICAN	26º 46' 34.73890"	080º 41' 36.79149"	-14.593	270657.683	230474.589	10.630	FCM NGS
LO 7	26º 43' 41.79904"	080º 51' 09.15656"	-17.817	265307.084	214669.940	7.085	FBD SFWMD
MF 41	26º 40' 39.67622"	080º 06' 14.15460"	-19.926	260006.785	289188.248	6.275	FCM USE
OKEEPORT RESET (BS)	27º 15' 59.40507"	080º 51' 08.07943"	-17.212	324940.811	214629.896	9.419	FDR NGS
Q 519	26º 41' 01.39815"	081º 26' 12.63790"	-16.419	260436.580	156522.772	8.021	FDR CERP
Q 529	26º 50' 25.22203"	081º 11' 44.29295"	-18.405	277729.330	180555.851	6.114	FCM CERP
R 543	27º 09' 43.96799"	080º 28' 52.89710"	-18.597	313483.214	251400.845	8.371	FDR CERP
S 191 W	27º 11' 32.21675"	080º 45' 47.17253"	-14.356	316730.834	223471.672	12.324	FDR SFWMD
S 2 27	26º 42' 01.72080"	080º 42' 58.41623"	-11.761	262250.037	228238.532	13.276	FBD SFWMD
S 410 X (BS)	26º 21' 16.72086"	080º 47' 29.55232"	-19.209	223920.677	220806.048	5.595	FDR NGS
Star	26º 56' 37.37697"	080º 36' 40.71721"	-15.409	289227.280	238596.444	10.612	FCM USC&GS
V 486	26º 29' 31.27310"	080º 39' 31.00980"	-19.072	239168.673	234033.289	5.870	FDR NGS
Y 530	26º 27' 32.60151"	081º 07' 28.89818"	-17.340	235477.395	187565.573	7.285	FDR CERP
Y 535	26º 19' 18.04567"	080º 58' 38.36321"	-19.701	220251.954	202264.006	5.113	FDR CERP
Y 555	26º 35' 58.10683"	080º 32' 44.58701"	-22.032	251108.557	245245.919	3.109	FCM FDEP

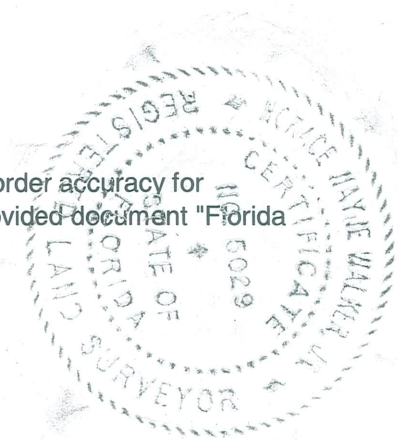
(BS) = Base Station Monitoring Control Setup
CERP = Comprehensive Everglades Restoration Plan
FDEP = Florida Department of Environmental Protection
FDOT = Florida Department of Transportation
GCT = Gustin, Cothern & Tucker, Inc.
NGS = National Geodetic Survey
SFWMD = South Florida Water Management District
USC&GS = United States Coast & Geodetic Survey
USE = United States Engineering Department
FBD = Found Brass Disc
FCM = Found Concrete Monument

FDR = Found Encased Stainless Steel Deep Rod
SAD = Set Aluminum Capped Iron Rod, GCT LB 3501
SCIR = Set Capped Iron Rod, GCT GPS/Trav
SND = Set Nail & Brass Disc, GCT LB 3501

I hereby certify that the preceeding data meets or exceeds second order accuracy for horizontal and third order accuracy for vertical as required in the provided document "Florida GIS - Baseline Specifications for Orthophotography and LiDAR".

Horace Wayne Walker, Jr. - Florida PSM No.5029





Gustin, Cothern and Tucker, Inc.
121 Hart Street, Niceville, Fl 32578

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Unused Points							
CP1019	27º 04' 26.24792"	080º 35' 19.98879"	-18.834	303664.976	240776.176	7.783	SCIR GCT
CP1020	27º 02' 55.44712"	080º 33' 21.83026"	-18.123	300881.387	244041.481	8.463	SCIR GCT
CP1023	26º 57' 17.04244"	080º 33' 50.76583"	-18.922	290463.359	243280.057	7.244	SCIR GCT
CP1041	26º 40' 59.67018"	080º 08' 43.76038"	-21.259	260593.777	285047.634	4.834	SCIR GCT
CP1045	26º 40' 16.63779"	080º 12' 10.64432"	-20.156	259232.333	279336.035	5.747	SND GCT
CP1060	26º 19' 01.37588"	080º 53' 45.30681"	-20.075	219742.944	210391.658	4.723	SCIR GCT
CP1064	26º 21' 49.08682"	080º 57' 21.10735"	-19.775	224900.664	204404.928	5.019	SCIR GCT
CP1068	26º 25' 53.70387"	081º 01' 12.12844"	-17.331	232427.993	198001.578	7.394	SCIR GCT
CP1072	26º 30' 00.48886"	081º 03' 51.75601"	-17.126	240024.162	193582.668	7.514	SCIR GCT
CP1128	27º 08' 01.21623"	080º 41' 11.44183"	-20.650	310253.331	231076.643	6.015	SND GCT
CP1187	27º 12' 10.76112"	080º 53' 40.97197"	-21.433	317899.352	210430.668	5.015	SCIR GCT
CP1218	26º 37' 43.00851"	080º 57' 30.73809"	-18.861	254257.289	204128.461	5.836	SCIR GCT
CP1222	26º 45' 07.24899"	081º 02' 53.88487"	-18.904	267929.297	195195.665	5.702	SND GCT
CP1260	26º 39' 09.99416"	080º 52' 10.92418"	-19.289	256940.252	212971.525	5.524	SCIR GCT
CP1262	26º 34' 46.99070"	080º 55' 59.82716"	-20.430	248841.363	206645.807	4.299	SCIR GCT
CP3000	26º 43' 32.05422"	080º 13' 42.66024"	-20.974	265231.091	276755.366	5.019	SCIR GCT

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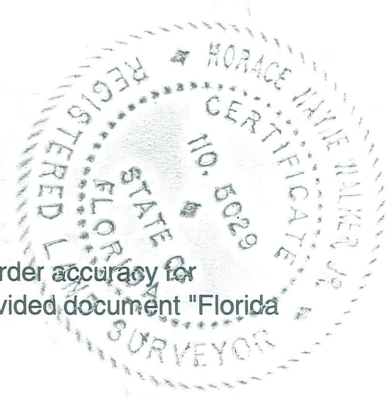
SAD = Set Aluminum Capped Iron Rod, GCT LB 3501
SCIR = Set Capped Iron Rod, GCT GPS/Trav
SND = Set Nail & Brass Disc, GCT LB 3501

I hereby certify that the preceeding data meets or exceeds second order accuracy for horizontal and third order accuracy for vertical as required in the provided document "Florida GIS - Baseline Specifications for Orthophotography and LiDAR".

Horace Wayne Walker, Jr. - Florida PSM No.5029



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LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Urban Points							
CP1032	26º 49' 12.92025"	080º 16' 09.75497"	-19.635	275698.113	272629.813	6.611	SND GCT
CP1034	26º 49' 02.74140"	080º 12' 32.91431"	-20.032	275420.703	278619.674	6.356	SND GCT
CP1038	26º 42' 27.23667"	080º 07' 49.69222"	-20.915	263298.977	286524.128	5.290	SND GCT
CP1039	26º 41' 50.41350"	080º 07' 52.22299"	-21.574	262165.165	286461.896	4.600	SND GCT
CP1040	26º 41' 50.79992"	080º 08' 45.11923"	-21.104	262167.179	284999.527	5.025	SCIR GCT
CP1042	26º 41' 01.08495"	080º 09' 37.39944"	-21.059	260627.474	283564.344	4.991	SND GCT
CP1043	26º 40' 15.58040"	080º 09' 34.58399"	-20.962	259227.469	283651.408	5.059	SCIR GCT
CP1044	26º 40' 11.58751"	080º 10' 55.55772"	-21.245	259090.034	281413.216	4.710	SCIR GCT
CP1046	26º 40' 17.16471"	080º 14' 30.75431"	-21.229	259224.949	275461.838	4.579	SND GCT
CP1047	26º 40' 13.96066"	080º 16' 00.26297"	-21.274	259111.878	272987.467	4.476	SCIR GCT
CP1053	26º 28' 17.89981"	080º 26' 46.81021"	-17.321	236984.304	255205.615	7.791	SND GCT
CP1054	26º 22' 41.89258"	080º 30' 44.47517"	-18.842	226616.974	248662.045	6.130	SND GCT
CP1056	26º 19' 28.96650"	080º 31' 48.28289"	-20.478	220673.151	246914.925	4.488	SND GCT
CP1057	26º 20' 01.16142"	080º 37' 42.48296"	-20.600	221631.945	237089.257	4.247	SND GCT
CP1087	26º 46' 06.29095"	081º 13' 47.86496"	-18.129	269766.126	177129.836	6.334	SND GCT
CP1119	27º 14' 56.51466"	080º 51' 56.06824"	-17.027	323003.673	213312.094	9.539	SND GCT
CP1120	27º 14' 56.15340"	080º 49' 59.98321"	-17.844	322996.396	216505.405	8.790	SND GCT
CP1121	27º 15' 16.65095"	080º 48' 53.68421"	-19.336	323629.836	218328.244	7.335	SCIR GCT
CP1122	27º 11' 51.94511"	080º 49' 48.87257"	-20.767	317327.243	216818.724	5.823	SND GCT
CP1123	27º 12' 26.09206"	080º 47' 47.71337"	-14.406	318383.179	220151.426	12.259	SND GCT
CP1125	27º 10' 49.92318"	080º 44' 01.50310"	-20.747	315434.960	226382.701	5.966	SND GCT
CP1126	27º 09' 51.50374"	080º 42' 56.62768"	-20.805	313640.850	228172.484	5.898	SND GCT
CP1127	27º 08' 51.75739"	080º 41' 45.69436"	-20.727	311806.560	230129.675	5.962	SND GCT
CP1130	27º 05' 21.97452"	080º 39' 34.55335"	-21.683	305359.173	233757.909	4.877	SND GCT
CP1133	27º 02' 04.40975"	080º 38' 10.07668"	-21.033	299285.120	236102.611	5.341	SND GCT
CP1137	26º 51' 49.46551"	080º 37' 52.89115"	-19.961	280360.295	236631.450	5.672	SND GCT
CP1138	26º 49' 30.43351"	080º 39' 58.95674"	-14.198	276071.729	233162.958	11.229	SND GCT
CP1153	26º 45' 44.87636"	080º 55' 22.61182"	-17.616	269088.722	207663.369	7.199	SND GCT
CP1154	26º 46' 33.97302"	080º 57' 52.12637"	-20.132	270597.890	203532.326	4.626	SND GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Urban Points							
CP1181	27º 07' 36.52800"	080º 53' 22.66947"	-20.762	309459.521	210941.767	5.495	SND GCT
CP1183	27º 09' 01.48087"	080º 52' 06.56729"	-19.465	312076.183	213034.748	6.927	SCIR GCT
CP1184	27º 10' 18.23433"	080º 51' 25.48300"	-20.492	314439.715	214163.210	5.985	SCIR GCT
CP1191	26º 53' 56.26043"	080º 31' 56.76132"	-21.001	284295.082	246447.221	4.991	SCIR GCT
CP1192	26º 49' 26.37441"	080º 32' 53.79566"	-21.897	275983.111	244902.988	3.754	SND GCT
CP1195	26º 44' 44.26840"	080º 18' 28.45018"	-19.314	267408.268	268844.870	6.566	SND GCT
CP1223	26º 44' 18.08561"	081º 07' 43.64315"	-17.635	266421.820	187188.282	6.876	SND GCT
CP1246	26º 46' 34.42815"	080º 15' 17.40869"	-20.278	270828.503	274103.920	5.829	SND GCT
CP1305-PA1	26º 44' 23.76650"	080º 55' 34.93965"	-19.633	266592.293	207324.233	5.150	SND GCT
CP5101	26º 39' 52.31371"	080º 41' 03.44833"	-22.007	258274.895	231426.338	3.027	SCIR GCT
CP5102	26º 39' 23.89100"	080º 41' 14.27409"	-21.617	257399.428	231129.139	3.405	SCIR GCT
CP5103	26º 40' 12.18922"	080º 40' 59.21282"	-21.773	258886.869	231541.934	3.269	SCIR GCT
CP5104	26º 44' 02.24210"	080º 39' 57.93592"	-21.966	265971.287	233217.666	3.204	SND GCT
CP5105	26º 40' 04.77737"	080º 40' 13.55989"	-20.977	258661.960	232804.802	4.077	SND GCT
CP5106	26º 40' 36.60179"	080º 41' 11.22337"	-20.616	259637.366	231208.004	4.431	SCIR GCT
CP5107	26º 40' 36.43072"	080º 40' 58.35697"	-21.468	259632.980	231563.744	3.583	SND GCT
CP5108	26º 42' 01.76438"	080º 41' 01.94695"	-21.066	262258.952	231457.981	4.018	
CP5109	26º 41' 45.83896"	080º 41' 19.18330"	-20.366	261767.660	230982.729	4.706	SND GCT
CP5110	26º 40' 30.22107"	080º 40' 42.70666"	-21.622	259442.955	231996.923	3.431	SCIR GCT
CP5111	26º 40' 04.52073"	080º 37' 54.61292"	-21.197	258664.561	236646.707	3.903	SND GCT
CP5112	26º 41' 47.80937"	080º 40' 04.75311"	-20.369	261833.491	233040.058	4.729	SND GCT
CP5113	26º 40' 42.04303"	080º 39' 14.54924"	-20.793	259813.160	234433.336	4.294	
CP5114A	26º 40' 56.58346"	080º 41' 01.95101"	-20.064	260252.951	231462.841	4.993	
CP5114B	26º 40' 58.07587"	080º 40' 40.26797"	-21.302	260300.380	232062.184	3.763	SCIR GCT
CP5115	26º 40' 55.68105"	080º 40' 11.47955"	-21.102	260228.712	232858.271	3.972	SND GCT
CP5116	26º 40' 55.63174"	080º 39' 38.75546"	-21.133	260229.568	233762.983	3.952	
CP5117	26º 41' 22.98214"	080º 41' 02.69536"	-20.659	261065.342	231440.250	4.408	SCIR GCT
CP5118	26º 38' 54.58402"	080º 38' 19.97884"	-20.800	256510.197	235951.425	4.265	SND GCT
CP5119	26º 41' 35.94203"	080º 38' 09.84430"	-22.126	261476.929	236217.534	3.009	SND GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Urban Points							
CP5120	26º 38' 54.34945"	080º 18' 58.17447"	-21.681	256634.394	268081.275	3.918	SND GCT
CP5121	26º 49' 17.08794"	080º 03' 31.53953"	-23.787	275964.229	293566.710	3.130	SND GCT
CP5122	26º 45' 11.07087"	080º 03' 33.97911"	-22.048	268391.694	293555.367	4.576	
CP5123	26º 42' 27.80315"	080º 03' 42.82408"	-21.710	263364.796	293347.979	4.751	SND GCT
CP5124	27º 06' 12.91301"	080º 35' 41.99109"	-17.718	306945.926	240159.412	8.986	SND GCT
CP5125	27º 03' 25.21570"	080º 33' 30.30315"	-17.099	301796.775	243804.776	9.513	SND GCT
CP5126	27º 01' 02.92495"	080º 27' 45.19054"	-16.508	297454.323	253333.325	10.144	SND GCT
CP5127	26º 48' 58.96472"	080º 20' 37.02319"	-18.741	275228.291	265251.665	7.317	SCIR GCT
CP5128	26º 47' 39.38477"	080º 16' 39.87836"	-19.697	272814.560	271814.346	6.426	SND GCT
CP5129	26º 41' 04.16548"	080º 19' 22.32066"	-20.817	260626.156	267392.306	4.850	
CP5130	26º 42' 34.08550"	080º 12' 03.18299"	-20.362	263463.906	279515.841	5.649	SND GCT
CP5131	26º 44' 10.08447"	080º 57' 03.82457"	-19.189	266170.035	204868.298	5.549	SND GCT
CP5132	26º 44' 14.14806"	080º 57' 30.83503"	-19.105	266294.831	204121.870	5.621	SND GCT
CP5133	26º 44' 12.95187"	080º 56' 38.74810"	-19.265	266258.567	205561.203	5.485	SND GCT
CP5134	26º 43' 52.74116"	080º 57' 12.84227"	-18.273	265636.188	204619.304	6.456	
CP5135	26º 45' 13.31147"	080º 54' 49.00551"	-20.308	268117.880	208592.466	4.513	SND GCT
CP5136	26º 45' 12.06886"	080º 54' 35.04043"	-18.378	268079.905	208978.334	6.449	SND GCT
CP5137	26º 45' 47.99785"	080º 56' 22.39220"	-20.360	269183.896	206011.778	4.426	
CP5138	26º 48' 56.24757"	081º 06' 04.68604"	-21.043	274980.063	189929.556	3.563	SND GCT
CP5139	26º 49' 05.36369"	081º 06' 24.18720"	-20.475	275261.063	189391.286	4.127	SND GCT
CP5140	26º 49' 56.04038"	081º 05' 49.53508"	-20.458	276819.932	190349.342	4.177	SND GCT
CP5141	26º 49' 45.22877"	081º 06' 14.43226"	-20.400	276487.736	189661.658	4.221	SND GCT
CP5142	26º 50' 22.51218"	081º 05' 17.48773"	-18.600	277633.989	191234.736	6.059	SND GCT
CP5143	26º 50' 00.26522"	081º 05' 12.36450"	-19.733	276949.213	191375.711	4.918	
CP5144	26º 58' 00.18680"	081º 07' 42.15858"	-19.400	291723.051	187254.911	5.484	SND GCT
CP5145	26º 58' 22.69922"	081º 07' 04.29687"	-20.160	292414.895	188299.683	4.767	SND GCT
CP5146	26º 58' 00.20011"	081º 08' 02.77984"	-19.362	291724.051	186686.232	5.509	
CP5147	26º 58' 57.62185"	081º 06' 15.48441"	-19.970	293488.521	189646.613	5.021	SND GCT
CP5148	26º 59' 01.46920"	081º 05' 46.16155"	-20.476	293606.289	190455.235	4.539	

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Urban Points							
CP5149	26º 58' 55.52887"	081º 05' 27.74879"	-19.549	293423.087	190962.801	5.474	SND GCT
CP5150	26º 59' 25.05370"	081º 04' 46.58037"	-20.062	294331.003	192098.534	5.020	SND GCT
CP5151	26º 59' 39.69638"	081º 04' 35.63840"	-19.946	294781.473	192400.495	5.160	SND GCT
CP5152	26º 59' 51.39274"	081º 04' 25.24208"	-20.116	295141.281	192687.337	5.010	
CP5153	27º 00' 01.83032"	081º 03' 59.09416"	-20.462	295462.118	193408.399	4.696	SCIR GCT
CP5154	27º 00' 19.87313"	081º 03' 08.24970"	-20.019	296016.762	194810.363	5.201	SND GCT
CP5155	27º 00' 29.79202"	081º 02' 30.08659"	-20.049	296321.643	195862.538	5.215	SND3501
CP5156	27º 07' 25.20220"	080º 53' 52.89939"	-20.804	309110.237	210109.572	5.418	SND GCT
CP5157	27º 08' 10.52667"	080º 53' 32.99554"	-20.336	310505.670	210656.510	5.946	SND GCT
CP5158	27º 08' 05.99982"	080º 52' 57.64868"	-20.809	310367.215	211629.948	5.497	
CP5159	27º 08' 40.28455"	080º 52' 38.77030"	-21.197	311422.914	212148.758	5.154	SCIR GCT
CP5160	27º 08' 47.91603"	080º 52' 26.50680"	-19.749	311658.127	212486.184	6.617	SND GCT
CP5161	27º 08' 47.10364"	080º 52' 04.32019"	-20.480	311633.751	213097.082	5.901	SND GCT
CP5162	27º 08' 57.76497"	080º 52' 05.16056"	-20.288	311961.857	213073.599	6.102	SND GCT
CP5163	27º 08' 49.53210"	080º 51' 52.19018"	-20.507	311708.849	213430.982	5.885	
CP5164	27º 08' 56.32890"	080º 51' 52.08426"	-20.659	311918.042	213433.673	5.739	SND GCT
CP5165	27º 09' 08.83862"	080º 52' 07.69251"	-19.669	312302.605	213003.532	6.728	SND GCT
CP5166	27º 09' 11.52791"	080º 52' 19.94250"	-20.533	312385.027	212666.181	5.858	SND GCT
CP5167	27º 09' 14.74419"	080º 52' 00.89357"	-20.781	312484.562	213190.527	5.626	
CP5168	27º 09' 33.04930"	080º 51' 54.13351"	-21.680	313048.149	213376.036	4.746	SND GCT
CP5169	27º 09' 38.31557"	080º 51' 44.89556"	-22.284	313210.509	213630.182	4.152	SND GCT
CP5170	27º 09' 44.94219"	080º 51' 41.52588"	-21.994	313414.563	213722.724	4.449	SND GCT
CP5171	27º 09' 50.19306"	080º 51' 43.66633"	-21.027	313576.108	213663.621	5.419	SND GCT
CP5172	27º 09' 55.41870"	080º 51' 39.88551"	-20.585	313737.056	213767.526	5.867	SND GCT
CP5173	27º 10' 07.94285"	080º 51' 30.57722"	-21.157	314122.807	214023.337	5.309	
CP5174	27º 10' 17.21452"	080º 51' 19.21136"	-21.380	314408.525	214335.887	5.101	SND GCT
CP5175	27º 10' 25.80542"	080º 51' 21.00793"	-20.696	314672.877	214286.128	5.789	SND GCT
CP5176	27º 12' 14.17687"	080º 50' 39.41674"	-21.717	318009.684	215426.855	4.852	SND GCT
CP5177	27º 12' 09.70281"	080º 49' 49.06011"	-21.919	317873.781	216812.823	4.678	SND GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Urban Points							
CP5178	27º 12' 08.58187"	080º 49' 37.11666"	-22.090	317839.730	217141.550	4.513	SND GCT
CP5179	27º 12' 11.39532"	080º 49' 23.98166"	-22.300	317926.827	217502.900	4.311	SND GCT
CP5180	27º 12' 14.65225"	080º 49' 38.70880"	-22.275	318026.504	217097.477	4.329	SND GCT
CP5181	27º 12' 31.00605"	080º 49' 46.27457"	-21.486	318529.555	216888.588	5.120	SND GCT
CP5182	27º 12' 49.18455"	080º 49' 48.38099"	-21.033	319088.973	216829.864	5.578	SND GCT
CP5183	27º 12' 53.27447"	080º 49' 54.65269"	-20.752	319214.620	216657.117	5.857	SND GCT
CP5184	27º 12' 44.24205"	080º 50' 38.53081"	-21.399	318935.058	215450.083	5.182	SND GCT
CP5185	27º 13' 07.11174"	080º 50' 22.60148"	-20.746	319639.494	215887.514	5.851	SND GCT
CP5186	27º 13' 16.10918"	080º 49' 46.90086"	-20.846	319917.714	216869.466	5.774	SND GCT
CP5187	27º 13' 23.38093"	080º 49' 44.83928"	-19.842	320141.601	216925.886	6.782	SND GCT
CP5188	27º 13' 40.53167"	080º 49' 45.07823"	-19.410	320669.458	216918.591	7.217	SND GCT
CP5189	27º 13' 45.49471"	080º 49' 48.79453"	-18.888	320822.071	216816.136	7.739	SND GCT
CP5190	27º 13' 55.93903"	080º 49' 49.63583"	-18.771	321143.496	216792.554	7.857	SND GCT
CP5191	27º 13' 50.87404"	080º 50' 06.98198"	-18.997	320986.968	216315.525	7.621	SND GCT
CP5192	27º 14' 07.56806"	080º 49' 46.57504"	-19.445	321501.529	216876.276	7.188	SND GCT
CP5193	27º 14' 13.61556"	080º 49' 51.39739"	-18.475	321687.479	216743.354	8.156	SND GCT
CP5194	27º 14' 13.34142"	080º 50' 04.14358"	-18.280	321678.573	216392.703	8.344	SND GCT
CP5195	27º 14' 15.75725"	080º 50' 19.38208"	-17.854	321752.381	215973.377	8.763	SND GCT
CP5196	27º 14' 28.36430"	080º 49' 43.56779"	-18.744	322141.710	216958.135	7.894	SND GCT
CP5197	27º 14' 24.52321"	080º 50' 04.16330"	-17.968	322022.726	216391.705	8.658	SND GCT
CP5198	27º 14' 37.90559"	080º 49' 48.50502"	-18.276	322435.187	216821.913	8.361	SND GCT
CP5199	27º 14' 40.75002"	080º 50' 12.36390"	-17.725	322521.860	216165.452	8.899	SND GCT
CP5200	27º 14' 52.32263"	080º 49' 48.21027"	-18.309	322878.928	216829.418	8.331	SND GCT
CP5201	27º 14' 51.46995"	080º 50' 04.78778"	-17.979	322852.073	216373.430	8.652	SND GCT
CP5202	27º 15' 09.05625"	080º 49' 48.36345"	-18.428	323393.951	216824.505	8.213	SND GCT
CP5203	27º 15' 09.42131"	080º 50' 14.00840"	-17.616	323404.249	216119.065	9.011	SND GCT
CP5204	27º 15' 21.25776"	080º 49' 50.43848"	-18.513	323769.414	216766.919	8.129	SND GCT
CP5205	27º 15' 33.53143"	080º 49' 54.72418"	-17.961	324147.016	216648.526	8.679	SND GCT
CP5206	27º 15' 30.77836"	080º 50' 16.11210"	-18.199	324061.504	216060.345	8.429	SND GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Urban Points							
CP5207	27º 15' 53.81913"	080º 49' 51.79478"	-18.574	324771.542	216728.258	8.069	SND GCT
CP5208	27º 15' 55.11372"	080º 50' 14.93198"	-18.023	324810.544	216091.833	8.607	SND GCT
CP5209	27º 16' 16.54212"	080º 49' 50.63090"	-18.363	325470.958	216759.323	8.282	SND GCT
CP5210	27º 16' 16.78551"	080º 50' 13.16943"	-17.901	325477.626	216139.441	8.731	SND GCT
CP5211	27º 16' 41.71377"	080º 49' 46.26772"	-18.181	326245.860	216878.266	8.466	SND GCT
CP5212	27º 16' 41.62764"	080º 50' 30.77367"	-17.167	326241.601	215654.308	9.456	SND GCT
CP5213	27º 16' 46.59689"	080º 50' 54.80308"	-16.428	326393.727	214993.289	10.180	SND GCT
CP5214	27º 16' 22.16253"	080º 50' 54.76449"	-17.129	325641.682	214995.261	9.479	SND GCT
CP5215	27º 16' 46.25706"	080º 51' 08.95669"	-16.921	326382.803	214604.066	9.679	SND GCT
CP5216	27º 16' 21.90008"	080º 51' 08.99879"	-16.667	325633.137	214603.793	9.933	
CP5217	27º 16' 46.30702"	080º 51' 26.54524"	-16.316	326383.779	214120.367	10.274	SND GCT
CP5218	27º 16' 21.45146"	080º 51' 26.42449"	-16.608	325618.773	214124.560	9.982	SND GCT
CP5219	27º 16' 46.45433"	080º 51' 44.04679"	-16.246	326387.773	213639.056	10.333	SND GCT
CP5220	27º 15' 56.97500"	080º 51' 43.77541"	-17.140	324864.897	213648.198	9.438	SND GCT
CP5221	27º 16' 46.92838"	080º 52' 02.22222"	-16.562	326401.823	213139.203	10.006	SND GCT
CP5222	27º 16' 12.96654"	080º 52' 02.46490"	-17.241	325356.531	213133.638	9.326	SND GCT
CP5223	27º 16' 15.28204"	080º 52' 50.67821"	-16.409	325426.462	211807.559	10.127	
CP5224	27º 15' 27.52585"	080º 52' 51.05778"	-16.762	323956.606	211798.520	9.772	SND GCT
CP5225	27º 16' 15.14491"	080º 54' 25.13992"	-16.813	325420.037	209209.598	9.661	SND GCT
CP5226	27º 15' 55.68447"	080º 53' 45.71424"	-17.156	324821.935	210294.414	9.342	SND GCT
CP5227	27º 14' 36.83810"	080º 51' 31.17507"	-17.308	322398.821	213997.546	9.270	
CP5228	27º 15' 04.38948"	080º 51' 35.85947"	-17.171	323246.654	213867.731	9.408	SND GCT
CP5229	27º 14' 36.87096"	080º 52' 09.64137"	-17.054	322398.682	212939.353	9.500	SND GCT
CP5230	27º 14' 36.32635"	080º 51' 08.95845"	-17.605	322383.775	214608.734	8.986	SND GCT
CP5231	27º 14' 10.96555"	080º 51' 13.99034"	-17.982	321603.057	214471.220	8.602	SND GCT
CP5300	26º 55' 15.52359"	080º 33' 24.19726"	-21.015	286725.895	244025.946	5.018	SCIR GCT
CP5301	26º 37' 38.90996"	080º 25' 10.39702"	-21.400	254261.702	257797.853	3.967	SCIR GCT
CP5302	26º 25' 19.03053"	080º 28' 57.54041"	-21.914	231464.461	251606.840	3.143	SCIR GCT
CP5303	26º 22' 42.56631"	080º 55' 27.81416"	-20.489	226547.912	207544.754	4.301	SCIR GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Urban Points							
CP5304	26º 22' 07.19291"	080º 55' 49.39012"	-20.275	225458.985	206947.275	4.518	SCIR GCT
CP5305	26º 21' 37.04937"	080º 55' 48.11685"	-20.245	224531.361	206983.074	4.551	SCIR GCT
CP5306	26º 20' 56.40085"	080º 57' 37.61887"	-19.355	223279.149	203947.682	5.447	SCIR GCT
CP5307	26º 18' 56.75460"	080º 57' 39.45677"	-20.029	219597.133	203897.837	4.787	SCIR GCT
CP5308	26º 18' 57.10260"	080º 56' 54.74705"	-19.475	219608.276	205137.815	5.338	SCIR GCT
CP5309	26º 19' 00.20032"	080º 53' 44.29597"	-20.081	219706.789	210419.722	4.717	SCIR GCT
CP5310	26º 20' 19.45658"	080º 54' 14.76503"	-20.611	222145.172	209572.886	4.188	SCIR GCT
CP5311	26º 20' 57.30468"	080º 54' 56.99837"	-20.832	223309.097	208401.054	3.967	SCIR GCT
CP5312	26º 19' 58.50907"	081º 00' 07.85145"	-19.187	221496.979	199782.279	5.619	SCIR GCT
CP5313	26º 24' 28.95863"	080º 59' 57.06480"	-18.741	229819.851	200081.340	6.010	SCIR GCT
CP5314	26º 25' 58.72601"	081º 05' 51.15186"	-17.075	232586.077	190270.946	7.600	SCIR GCT
CP5315	26º 26' 03.15141"	080º 57' 10.71580"	-19.676	232719.437	204690.157	5.074	SCIR GCT
CP5316	26º 29' 50.55790"	080º 39' 48.03872"	-20.697	239760.919	233560.164	4.243	SCIR GCT
CP5317	26º 26' 57.09911"	080º 48' 50.96387"	-20.850	234392.183	218533.812	3.976	SCIR GCT
CP5318	26º 29' 03.44781"	080º 58' 49.12761"	-19.076	238267.280	201962.728	5.626	SCIR GCT
CP5319	26º 28' 33.59368"	081º 01' 42.65665"	-17.614	237348.693	197156.840	7.062	SCIR GCT
CP5320	26º 28' 26.02060"	081º 04' 39.70281"	-17.221	237117.660	192253.261	7.430	SCIR GCT
CP5321	26º 27' 33.37725"	081º 06' 18.20557"	-17.725	235499.519	189523.771	6.922	SCIR GCT
CP5322	26º 28' 53.72893"	081º 07' 30.22922"	-17.213	237974.102	187531.132	7.403	SCIR GCT
CP5323	26º 29' 35.68824"	081º 05' 33.76431"	-17.178	239262.656	190757.502	7.449	SCIR GCT
CP5324	26º 29' 34.35724"	081º 05' 12.16582"	-17.405	239221.277	191355.574	7.227	SCIR GCT
CP5326	26º 28' 37.64872"	080º 56' 48.32756"	-20.337	237474.270	205308.473	4.396	SCIR GCT
CP5327	26º 33' 57.78459"	080º 50' 33.43864"	-20.694	247334.940	215679.153	4.128	SCIR GCT
CP5328	26º 33' 00.98079"	080º 56' 52.33359"	-19.095	245578.227	205194.232	5.621	SCIR GCT
CP5329	26º 33' 05.55755"	080º 59' 21.26378"	-19.221	245718.066	201072.129	5.450	SCIR GCT
CP5330	26º 35' 04.13395"	081º 04' 45.55517"	-16.914	249369.665	192098.748	7.674	SCIR GCT
CP5331	26º 35' 07.60641"	081º 02' 44.93746"	-17.771	249474.900	195436.254	6.842	SCIR GCT
CP5332	26º 35' 16.76892"	081º 00' 27.74750"	-18.789	249756.084	199232.256	5.856	SCIR GCT
CP5333	26º 21' 49.35870"	080º 33' 35.17659"	-20.495	224983.232	243935.766	4.426	SCIR GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Urban Points							
CP5334	26º 29' 13.52305"	080º 34' 57.09082"	-21.963	238644.819	241620.523	3.034	SCIR GCT
CP5336	26º 23' 45.58522"	080º 39' 56.66948"	-20.944	228528.311	233350.353	3.929	SCIR GCT
CP5337	26º 40' 39.67718"	080º 32' 19.26600"	-22.544	259776.665	245915.185	2.707	SCIR GCT
CP5338	26º 37' 09.99805"	080º 38' 24.89708"	-22.242	253291.106	235824.472	2.790	SCIR GCT
CP5339	26º 37' 22.26654"	080º 42' 42.01719"	-21.299	253650.651	228711.256	3.670	SCIR GCT
CP5340	26º 39' 10.96967"	080º 46' 22.26097"	-21.396	256983.766	222613.206	3.533	SCIR GCT
CP5341	26º 43' 32.19696"	080º 38' 08.33708"	-22.155	265054.916	236248.973	3.042	SCIR GCT
CP5342	26º 43' 29.73604"	080º 27' 04.08632"	-22.106	265044.970	254606.741	3.424	SCIR GCT
CP5343	26º 48' 46.65584"	080º 33' 53.50969"	-21.628	274754.947	243258.325	3.947	SCIR GCT
CP5345	27º 09' 53.75894"	080º 38' 24.56016"	-17.929	313729.481	235662.101	8.869	SCIR GCT



(BS) = Base Station Monitoring Control Setup
CERP = Comprehensive Everglades Restoration Plan
FDEP = Florida Department of Environmental Protection
FDOT = Florida Department of Transportation
GCT = Gustin, Cothern & Tucker, Inc.
NGS = National Geodetic Survey
SFWMD = South Florida Water Management District
USC&GS = United States Coast & Geodetic Survey
USE = United States Engineering Department
FBD = Found Brass Disc
FCM = Found Concrete Monument

FDR = Found Encased Stainless Steel Deep Rod
SAD = Set Aluminum Capped Iron Rod, GCT LB 3501
SCIR = Set Capped Iron Rod, GCT GPS/Trav
SND = Set Nail & Brass Disc, GCT LB 3501

I hereby certify that the preceeding data meets or exceeds second order accuracy for horizontal and third order accuracy for vertical as required in the provided document "Florida GIS - Baseline Specifications for Orthophotography and LiDAR".

Horace Wayne Walker, Jr. - Florida PSM No.5029

Gustin, Cothern and Tucker, Inc.
121 Hart Street, Niceville, Fl 32578

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Bare Earth and Low Grass Points							
CP1001	27º 15' 51.00194"	080º 47' 16.27286"	-17.292	324691.351	221005.936	9.430	SND GCT
CP1002	27º 15' 01.72311"	080º 47' 18.53105"	-17.685	323174.532	220946.390	9.032	SCIR GCT
CP1003	27º 15' 47.40914"	080º 50' 04.55774"	-18.401	324573.785	216377.482	8.234	SND GCT
CP1004	27º 14' 57.49686"	080º 45' 30.82816"	-16.632	323049.818	223909.328	10.131	SND GCT
CP1005	27º 14' 12.99698"	080º 44' 35.60025"	-16.681	321683.217	225431.363	10.095	SCIR GCT
CP1007	27º 13' 00.34298"	080º 43' 47.34634"	-18.089	319449.856	226763.716	8.685	SCIR GCT
CP1008	27º 12' 36.72121"	080º 43' 24.99625"	-15.420	318724.164	227380.312	11.354	SCIR GCT
CP1009	27º 11' 37.35488"	080º 42' 23.03679"	-18.209	316900.861	229089.589	8.562	SCIR GCT
CP1010	27º 10' 48.44634"	080º 41' 38.90504"	-18.551	315398.457	230307.854	8.212	SCIR GCT
CP1011	27º 11' 38.73243"	080º 41' 51.86833"	-17.943	316945.298	229947.305	8.839	SCIR GCT
CP1012	27º 10' 52.48528"	080º 39' 40.61310"	-17.506	315531.134	233563.549	9.299	SCIR GCT
CP1014	27º 08' 31.71831"	080º 39' 06.12873"	-17.386	311201.210	234524.759	9.346	SCIR GCT
CP1015	27º 08' 08.31531"	080º 38' 26.16045"	-17.880	310484.015	235627.336	8.851	SCIR GCT
CP1016	27º 07' 23.20247"	080º 37' 21.13565"	-17.957	309100.788	237422.053	8.763	SCIR GCT
CP1017	27º 07' 05.80093"	080º 36' 15.52779"	-17.657	308570.763	239230.545	9.075	SCIR GCT
CP1018	27º 06' 48.00838"	080º 35' 04.29847"	-17.148	308029.475	241194.059	9.599	SCIR GCT
CP1021	27º 01' 51.58205"	080º 33' 30.05207"	-19.039	298914.973	243821.795	7.474	SCIR GCT
CP1022	26º 59' 54.30589"	080º 33' 31.25682"	-18.457	295305.384	243801.218	7.917	SCIR GCT
CP1024	26º 57' 29.06733"	080º 30' 48.11873"	-18.745	290851.838	248316.175	7.550	SCIR GCT
CP1025	26º 55' 06.75907"	080º 29' 02.35224"	-18.263	286483.528	251251.088	7.919	SCIR GCT
CP1026	26º 51' 35.62716"	080º 24' 59.67349"	-19.414	280014.518	257976.467	6.658	SCIR GCT
CP1027	26º 50' 40.58851"	080º 24' 35.43995"	-19.465	278323.674	258653.294	6.561	SCIR GCT
CP1028	26º 49' 11.36172"	080º 23' 11.08639"	-19.232	275588.564	260995.392	6.748	SCIR GCT
CP1029	26º 49' 00.76786"	080º 21' 38.85705"	-18.795	275275.077	263543.851	7.228	SCIR GCT
CP1030	26º 48' 58.17467"	080º 19' 38.71250"	-19.676	275212.401	266862.039	6.418	SCIR GCT
CP1035	26º 48' 39.96465"	080º 11' 50.43975"	-20.177	274727.041	279797.046	6.216	SND GCT
CP1036	26º 45' 57.63288"	080º 11' 58.62591"	-19.966	269729.397	279602.429	6.239	SCIR GCT
CP1041	26º 40' 59.67018"	080º 08' 43.76038"	-21.259	260593.777	285047.634	4.834	SCIR GCT
CP1048	26º 40' 15.60836"	080º 17' 55.26477"	-20.270	259144.720	269807.346	5.413	SCIR GCT
CP1049	26º 40' 35.93995"	080º 19' 52.32974"	-18.184	259753.088	266567.203	7.448	SCIR GCT
CP1050	26º 40' 42.38056"	080º 21' 46.91559"	-18.592	259935.100	263398.067	6.986	SCIR GCT
CP1051	26º 35' 34.33389"	080º 26' 44.85157"	-20.625	250416.139	255201.827	4.631	SCIR GCT
CP1055	26º 25' 18.90127"	080º 28' 58.61111"	-18.938	231460.364	251577.188	6.118	SCIR GCT
CP1058	26º 19' 58.33430"	080º 46' 29.76621"	-19.738	221511.174	222467.819	5.054	SCIR GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Bare Earth and Low Grass Points							
CP1059	26º 19' 59.78349"	080º 41' 04.85731"	-19.807	221574.619	231477.496	5.008	SND GCT
CP1061	26º 19' 04.53760"	080º 51' 24.56276"	-20.861	219843.977	214294.919	3.927	SCIR GCT
CP1062	26º 19' 12.34289"	080º 54' 55.68259"	-20.226	220079.018	208439.650	4.577	SCIR GCT
CP1063	26º 20' 30.73105"	080º 56' 46.38732"	-19.788	222489.697	205368.465	5.015	SCIR GCT
CP1065	26º 23' 08.21626"	080º 57' 44.56000"	-19.201	227335.606	203754.048	5.579	SCIR GCT
CP1066	26º 23' 33.80415"	080º 59' 40.20152"	-16.658	228122.519	200548.729	8.108	SCIR GCT
CP1067	26º 24' 55.67302"	081º 00' 14.17948"	-18.372	230641.976	199607.082	6.370	SCIR GCT
CP1069	26º 27' 36.57182"	081º 01' 40.39836"	-16.816	235593.853	197219.005	7.882	SCIR GCT
CP1070	26º 27' 36.87227"	081º 02' 53.55804"	-16.604	235603.698	195192.514	8.074	SCIR GCT
CP1071	26º 29' 14.55726"	081º 03' 28.28641"	-16.877	238610.318	194231.905	7.775	SCIR GCT
CP1073	26º 32' 17.13946"	081º 04' 17.20767"	-16.321	244229.939	192880.252	8.291	SND GCT
CP1074	26º 33' 16.27220"	081º 05' 13.96273"	-16.336	246050.721	191310.456	8.257	SCIR GCT
CP1075	26º 34' 59.62045"	081º 06' 12.95504"	-16.111	249232.489	189680.298	8.460	SCIR GCT
CP1076	26º 36' 09.66324"	081º 07' 38.59282"	-15.767	251390.209	187312.835	8.778	SND GCT
CP1077	26º 37' 17.38970"	081º 07' 25.33445"	-16.548	253474.151	187681.650	7.991	SND GCT
CP1078	26º 38' 09.97091"	081º 07' 33.24168"	-16.679	255092.571	187464.523	7.852	SCIR GCT
CP1079	26º 39' 54.67007"	081º 08' 48.79063"	-16.409	258316.969	185378.739	8.092	SCIR GCT
CP1080	26º 39' 52.52082"	081º 11' 22.06262"	-16.174	258256.407	181140.604	8.299	SCIR GCT
CP1081	26º 40' 45.86407"	081º 11' 23.63360"	-16.782	259898.143	181099.608	7.688	SCIR GCT
CP1082	26º 40' 43.68682"	081º 13' 06.32036"	-16.192	259835.679	178260.509	8.264	SND GCT
CP1083	26º 42' 15.02655"	081º 12' 53.45106"	-17.801	262646.122	178621.044	6.653	SCIR GCT
CP1084	26º 42' 53.95672"	081º 13' 07.54753"	-17.907	263844.892	178233.458	6.546	SND GCT
CP1085	26º 44' 44.02407"	081º 13' 47.40814"	-18.327	267234.255	177137.884	6.127	SCIR GCT
CP1086	26º 43' 57.48445"	081º 13' 58.26962"	-17.969	265802.499	176835.150	6.481	SCIR GCT
CP1088	26º 47' 00.69696"	081º 13' 53.02123"	-19.281	271440.790	176990.438	5.186	SND GCT
CP1089	26º 49' 26.13331"	081º 14' 49.87086"	-17.923	275919.732	175428.850	6.558	SND GCT
CP1090	26º 50' 56.58513"	081º 13' 37.76616"	-17.058	278699.793	177424.797	7.457	SND GCT
CP1091a	26º 51' 29.43960"	081º 13' 01.61960"	-17.431	279709.189	178424.390	7.102	SCIR GCT
CP1092	26º 52' 15.80483"	081º 10' 22.82581"	-18.577	281129.404	182809.646	6.019	SCIR GCT
CP1093	26º 55' 14.24393"	081º 14' 07.20231"	-16.975	286631.135	176626.910	7.622	SCIR GCT
CP1094	26º 54' 40.54171"	081º 16' 33.54423"	-13.882	285602.045	172587.268	10.656	SND GCT
CP1095	26º 55' 15.83307"	081º 19' 07.06385"	-11.902	286698.151	168354.242	12.611	SND GCT
CP1096	26º 56' 43.46794"	081º 19' 02.04368"	-11.652	289394.936	168499.506	12.888	SCIR GCT
CP1097	26º 56' 43.20836"	081º 18' 29.63319"	-12.376	289384.735	169393.456	12.172	SCIR GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control | ***Fixed Vertical Control***

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Bare Earth and Low Grass Points							
CP1100	26º 59' 16.62683"	081º 16' 06.10700"	-13.255	294097.469	173362.326	11.411	SCIR GCT
CP1101	27º 01' 03.18671"	081º 16' 37.57494"	-12.979	297378.955	172501.884	11.729	SCIR GCT
CP1102	27º 02' 48.36825"	081º 15' 25.23016"	-13.718	300611.933	174502.673	11.092	SCIR GCT
CP1104	27º 07' 14.65668"	081º 14' 49.53817"	-14.043	308805.652	175502.362	10.973	SCIR GCT
CP1105	27º 09' 24.08076"	081º 14' 52.18774"	-15.139	312789.174	175437.253	9.974	SCIR GCT
CP1106	27º 10' 41.79659"	081º 13' 51.12001"	-14.561	315177.893	177122.910	10.665	SCIR GCT
CP1107	27º 08' 14.20235"	081º 12' 05.00208"	-14.752	310630.242	180036.591	10.447	SCIR GCT
CP1108	27º 07' 58.48709"	081º 09' 48.48879"	-16.844	310141.104	183794.951	8.467	SCIR GCT
CP1109	27º 06' 37.68114"	081º 08' 58.10617"	-16.519	307652.368	185179.367	8.767	SCIR GCT
CP1110	27º 07' 20.52170"	081º 04' 59.12454"	-17.644	308964.805	191762.325	7.915	SCIR GCT
CP1111	27º 06' 26.51485"	081º 06' 40.00312"	-17.370	307304.757	188982.730	8.037	SCIR GCT
CP1112	27º 08' 27.63765"	081º 03' 08.50538"	-18.593	311028.826	194809.559	7.144	SCIR GCT
CP1113	27º 09' 52.29067"	081º 01' 42.72494"	-18.118	313633.484	197172.091	7.784	SCIR GCT
CP1114	27º 11' 44.91432"	081º 00' 14.88679"	-18.112	317099.470	199590.297	7.971	SCIR GCT
CP1115	27º 12' 53.82085"	081º 00' 15.67496"	-16.893	319220.265	199568.679	9.236	SCIR GCT
CP1116	27º 14' 31.34220"	080º 58' 31.31794"	-17.675	322222.005	202439.636	8.600	SCIR GCT
CP1117	27º 14' 37.06162"	080º 56' 10.16254"	-17.246	322399.410	206322.719	9.142	SCIR GCT
CP1118	27º 14' 36.98322"	080º 54' 01.15672"	-17.421	322399.315	209871.611	9.058	SND GCT
CP1124	27º 11' 39.55890"	080º 45' 46.34266"	-18.455	316956.853	223494.085	8.243	SND GCT
CP1129	27º 06' 40.06306"	080º 39' 50.65821"	-20.323	307761.366	233307.839	6.304	SCIR GCT
CP1131	27º 04' 02.85223"	080º 39' 04.46031"	-20.203	302926.247	234593.648	6.285	SND GCT
CP1132	27º 03' 07.96483"	080º 38' 37.86606"	-21.131	301238.998	235331.177	5.307	SND GCT
CP1134	27º 00' 04.55760"	080º 37' 19.41036"	-20.409	295600.489	237510.083	5.843	SCIR GCT
CP1135	26º 58' 24.34103"	080º 36' 45.88816"	-20.272	292518.895	238443.725	5.871	SND GCT
CP1136	26º 55' 45.82719"	080º 36' 42.67645"	-20.532	287640.562	238547.271	5.415	SCIR GCT
CP1139	26º 47' 53.03568"	080º 41' 39.47048"	-20.790	273067.188	230394.791	4.497	SCIR GCT
CP1140	26º 46' 08.32067"	080º 41' 20.36833"	-21.617	269845.731	230930.246	3.599	SCIR GCT
CP1141	26º 45' 02.22633"	080º 40' 56.49772"	-21.498	267813.229	231594.762	3.676	SND GCT
CP1142	26º 43' 59.17605"	080º 41' 02.56450"	-20.742	265872.370	231431.952	4.400	SND GCT
CP1143	26º 43' 32.82239"	080º 42' 01.25855"	-21.353	265057.390	229811.897	3.753	SCIR GCT
CP1144	26º 42' 19.99262"	080º 43' 05.08550"	-19.456	262811.960	228052.936	5.594	SCIR GCT
CP1145	26º 40' 57.82561"	080º 43' 49.85472"	-12.833	260280.526	226820.822	12.171	SND GCT
CP1146	26º 40' 55.13032"	080º 45' 02.04872"	-19.663	260193.518	224825.087	5.300	SND GCT
CP1147	26º 41' 17.62409"	080º 45' 44.55392"	-19.812	260883.538	223648.679	5.160	SCIR GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Bare Earth and Low Grass Points							
CP1148	26º 41' 53.65346"	080º 47' 03.01165"	-19.912	261988.513	221477.844	5.044	SND GCT
CP1149	26º 41' 48.18984"	080º 48' 03.46708"	-19.989	261817.648	219806.967	4.943	SND GCT
CP1150	26º 42' 43.66409"	080º 50' 11.25584"	-20.187	263519.888	216272.334	4.712	SND GCT
CP1151	26º 44' 23.71536"	080º 52' 40.83271"	-19.536	266594.414	212135.217	5.329	SND GCT
CP1152	26º 45' 01.22957"	080º 54' 07.24317"	-19.616	267746.884	209746.604	5.221	SND GCT
CP1155	26º 47' 39.99807"	080º 58' 07.99943"	-19.785	272629.763	203093.359	5.014	SND GCT
CP1156	26º 48' 34.34652"	080º 59' 08.09099"	-20.397	274302.098	201433.492	4.374	SND GCT
CP1157	26º 48' 44.09801"	081º 01' 33.95039"	-20.062	274602.397	197405.577	4.646	SND GCT
CP1158	26º 48' 56.38329"	081º 02' 32.35881"	-20.528	274980.925	195792.765	4.161	SCIR GCT
CP1159	26º 49' 19.13761"	081º 04' 27.86900"	-19.793	275682.681	192603.477	4.858	SND GCT
CP1160	26º 49' 59.46972"	081º 04' 35.42080"	-19.908	276924.074	192395.701	4.759	SND GCT
CP1161	26º 50' 27.58205"	081º 06' 00.81909"	-20.221	277790.908	190038.557	4.423	SND GCT
CP1162	26º 51' 54.60950"	081º 07' 21.51861"	-19.206	280471.252	187813.204	5.448	SND GCT
CP1163	26º 53' 06.23885"	081º 07' 21.34103"	-18.906	282675.744	187820.238	5.787	SND GCT
CP1164	26º 53' 44.07826"	081º 07' 21.13518"	-19.463	283840.303	187827.045	5.252	SND GCT
CP1165	26º 55' 09.46611"	081º 07' 20.62247"	-17.414	286468.236	187843.734	7.355	SND GCT
CP1166	26º 55' 43.22937"	081º 07' 20.45452"	-18.205	287507.351	187849.372	6.587	SCIR GCT
CP1167	26º 57' 07.83400"	081º 07' 19.89965"	-18.425	290111.190	187867.195	6.431	SCIR GCT
CP1168	26º 57' 50.07252"	081º 07' 13.67556"	-17.840	291410.992	188040.100	7.053	SND GCT
CP1169	26º 58' 33.07472"	081º 06' 50.96077"	-19.973	292733.883	188667.725	4.971	SND GCT
CP1170	26º 59' 02.60346"	081º 06' 07.93644"	-20.098	293641.669	189854.860	4.902	SND GCT
CP1171	26º 59' 02.48571"	081º 05' 05.61544"	-20.015	293636.772	191573.240	5.032	SND GCT
CP1172	26º 59' 55.79813"	081º 04' 16.94325"	-20.044	295276.734	192916.211	5.093	SCIR GCT
CP1173	27º 00' 18.67874"	081º 03' 09.75635"	-19.983	295980.019	194768.813	5.234	SCIR GCT
CP1174	27º 00' 41.78356"	081º 01' 54.38946"	-20.609	296690.420	196846.700	4.702	SCIR GCT
CP1175	27º 01' 37.47664"	081º 00' 40.51545"	-19.979	298404.140	198883.290	5.476	SCIR GCT
CP1176	27º 02' 29.95359"	080º 59' 35.87222"	-20.312	300019.196	200664.938	5.276	SCIR GCT
CP1177	27º 03' 57.24629"	080º 58' 42.33261"	-16.662	302705.985	202139.977	9.064	SCIR GCT
CP1178	27º 05' 23.34300"	080º 57' 42.16620"	-19.912	305356.203	203796.941	5.970	SCIR GCT
CP1179	27º 06' 28.73825"	080º 56' 34.90433"	-19.730	307369.599	205648.909	6.289	SCIR GCT
CP1180	27º 07' 20.42695"	080º 55' 02.93321"	-19.827	308961.851	208181.008	6.330	SCIR GCT
CP1182	27º 08' 37.33035"	080º 52' 44.92689"	-20.485	311331.826	211979.330	5.859	SND GCT
CP1185	27º 11' 34.66935"	080º 50' 51.55374"	-20.201	316793.316	215094.331	6.342	SND GCT
CP1186	27º 11' 45.36795"	080º 58' 16.99201"	-18.969	317113.748	202834.908	7.229	SCIR GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Bare Earth and Low Grass Points							
CP1188	27º 09' 35.61246"	080º 41' 01.21866"	-18.959	313159.351	231350.837	7.775	SCIR GCT
CP1190	27º 01' 50.56554"	080º 36' 44.87465"	-20.549	298866.029	238452.182	5.852	SCIR GCT
CP1191	26º 53' 56.26043"	080º 31' 56.76132"	-21.001	284295.082	246447.221	4.991	SCIR GCT
CP1193	26º 48' 45.47820"	080º 36' 46.50705"	-20.534	274703.241	238481.101	4.943	SND GCT
CP1194	26º 46' 06.15567"	080º 25' 36.42003"	-21.657	269869.730	257007.875	4.058	SCIR GCT
CP1196	26º 40' 52.79626"	080º 29' 52.35380"	-21.603	260195.754	249975.415	3.728	SCIR GCT
CP1197	26º 43' 34.42877"	080º 34' 43.70201"	-21.143	265141.037	241904.076	4.147	SCIR GCT
CP1198	26º 38' 42.40180"	080º 35' 05.30729"	-19.203	256151.637	241336.239	5.923	SAD GCT
CP1200	26º 38' 32.12943"	080º 40' 17.32106"	-20.732	255810.382	232708.140	4.291	SND GCT
CP1202	26º 28' 47.77307"	080º 32' 09.91304"	-21.420	237868.238	246253.148	3.620	SCIR GCT
CP1203	26º 23' 54.64299"	080º 35' 14.43638"	-20.801	228829.729	241171.637	4.125	SCIR GCT
CP1204	26º 34' 36.59774"	080º 41' 27.72794"	-21.561	248556.915	230778.465	3.397	SCIR GCT
CP1205	26º 28' 15.81830"	080º 38' 37.09292"	-20.925	236850.603	235532.811	4.033	SCIR GCT
CP1207	26º 24' 49.93672"	080º 39' 55.40205"	-21.535	230508.799	233380.337	3.351	SCIR GCT
CP1209	26º 34' 50.69194"	080º 44' 51.38906"	-20.666	248978.316	225141.935	4.248	SND GCT
CP1210	26º 25' 07.30114"	080º 54' 23.00331"	-19.128	231003.213	209338.020	5.652	SND GCT
CP1211	26º 38' 18.56525"	080º 49' 46.46575"	-20.388	255362.205	216968.404	4.462	SCIR GCT
CP1212	26º 31' 20.30004"	080º 49' 54.09001"	-19.715	242489.730	216774.461	5.110	SCIR GCT
CP1213	26º 35' 40.04447"	080º 53' 37.10476"	-20.262	250476.771	210593.715	4.511	SCIR GCT
CP1214	26º 40' 02.47251"	080º 54' 08.19067"	-20.234	258552.405	209727.474	4.542	SND GCT
CP1215	26º 32' 07.71886"	080º 56' 53.21324"	-19.767	243939.083	205170.549	4.962	SCIR GCT
CP1216	26º 29' 55.78475"	080º 54' 00.19499"	-21.009	239881.662	209963.128	3.758	SCIR GCT
CP1217	26º 28' 07.01451"	080º 58' 18.24326"	-18.872	236530.723	202818.416	5.846	SCIR GCT
CP1219	26º 42' 38.66669"	080º 58' 01.01736"	-19.004	263356.076	203288.605	5.691	SCIR GCT
CP1220	26º 35' 09.63498"	081º 02' 20.39552"	-17.794	249537.104	196115.337	6.825	SCIR GCT
CP1221	26º 40' 27.70987"	081º 03' 50.76701"	-17.991	259326.977	193619.719	6.573	SND GCT
CP1224	26º 48' 44.00706"	081º 10' 21.24028"	-19.471	274610.984	182844.543	5.056	SCIR GCT
CP1225	26º 56' 31.33750"	081º 11' 10.13547"	-14.956	288995.689	181515.432	9.752	SCIR GCT
CP1228	27º 03' 24.20026"	081º 11' 38.07252"	-15.727	301703.543	180764.356	9.261	SCIR GCT
CP1229	27º 01' 59.74352"	081º 07' 28.69757"	-18.032	299095.514	187633.411	7.072	SCIR GCT
CP1230	27º 04' 18.39430"	081º 04' 14.12948"	-18.394	303358.642	192998.311	7.024	SND GCT
CP1231	27º 05' 29.09776"	081º 00' 21.83855"	-16.319	305532.756	199398.417	9.410	SCIR GCT
CP1233	27º 10' 06.35762"	080º 56' 35.65545"	-18.392	314067.383	205625.195	7.829	SCIR GCT
CP1234	26º 45' 51.44808"	080º 29' 57.16206"	-20.211	269386.672	249806.354	5.381	SND GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control | ***Fixed Vertical Control***

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Bare Earth and Low Grass Points							
CP1235	26º 42' 38.60119"	080º 25' 42.61973"	-20.967	263481.111	256865.270	4.569	SCIR GCT
CP1236	26º 37' 39.29355"	080º 31' 05.94593"	-21.825	254232.652	247963.268	3.372	SCIR GCT
CP1237	26º 31' 13.91809"	080º 40' 55.41434"	-20.944	242321.583	231688.114	3.994	SCIR GCT
CP1238	26º 44' 10.48932"	080º 14' 11.34196"	-20.138	266409.249	275955.590	5.870	SCIR GCT
CP1239	26º 45' 01.24699"	080º 21' 12.15409"	-20.219	267907.035	264318.738	5.584	SCIR GCT
CP1240	26º 24' 47.79695"	080º 48' 21.06160"	-18.227	230414.186	219368.176	6.596	SCIR GCT
CP1241	26º 41' 48.39674"	080º 38' 08.96420"	-20.665	261860.304	236240.769	4.476	SCIR GCT
CP1242	26º 43' 59.35094"	081º 10' 07.80626"	-17.987	265849.899	183203.894	6.495	SCIR GCT
CP1243	26º 21' 40.42687"	080º 52' 52.30035"	-18.858	224638.866	211857.225	5.939	SCIR GCT
CP1244	27º 00' 45.51203"	081º 11' 30.63073"	-17.087	296819.250	180961.985	7.783	SCIR GCT
CP1245	26º 53' 07.31453"	080º 34' 48.14914"	-22.248	282772.104	241722.894	3.575	SCIR GCT
CP1247	26º 45' 43.25881"	080º 37' 38.20849"	-21.938	269090.913	237069.803	3.361	SCIR GCT
CP1248	26º 46' 49.32995"	080º 19' 38.46795"	-19.521	271246.940	266889.782	6.439	SND GCT
CP1249	26º 43' 14.54749"	080º 15' 54.56864"	-19.838	264670.730	273112.892	6.054	SCIR GCT
CP1250	26º 31' 07.99564"	080º 35' 30.44391"	-21.050	242164.775	240685.656	3.957	SCIR GCT
CP1251	26º 22' 42.25501"	080º 55' 21.43319"	-17.647	226538.436	207721.635	7.144	SCIR GCT
CP1253	26º 27' 49.14234"	080º 50' 58.88854"	-19.652	235989.165	214988.132	5.154	SCIR GCT
CP1254	26º 32' 34.35528"	080º 52' 34.91402"	-20.839	244763.711	212319.888	3.948	SCIR GCT
CP1255	26º 34' 48.64815"	080º 49' 14.30661"	-21.474	248903.153	217866.884	3.372	SCIR GCT
CP1256	26º 28' 43.98658"	080º 47' 09.91800"	-21.153	237685.967	221327.545	3.699	SCIR GCT
CP1257	26º 31' 20.48274"	080º 43' 49.33728"	-21.618	242512.586	226872.570	3.286	SCIR GCT
CP1258	26º 37' 53.20093"	080º 46' 51.76686"	-21.594	254588.967	221801.369	3.312	SCIR GCT
CP1259	26º 37' 52.61911"	080º 43' 55.93670"	-21.170	254580.321	226664.630	3.786	SCIR GCT
CP1261	26º 32' 42.03486"	080º 47' 15.77511"	-21.497	245011.623	221153.215	3.370	SND GCT
CP1301-PA1	26º 42' 44.55527"	080º 54' 15.96019"	-20.684	263540.440	209508.910	4.112	SCIR GCT
CP1302-PA1	26º 42' 51.81869"	080º 53' 37.97569"	-21.156	263764.807	210558.578	3.658	SCIR GCT
CP1304-PA1	26º 44' 06.28080"	080º 54' 08.13376"	-19.909	266055.770	209723.296	4.910	SCIR GCT
CP2000	26º 42' 56.97770"	080º 53' 38.73680"	-21.631	263923.562	210537.410	3.184	SCIR GCT
CP2005	26º 42' 48.02854"	080º 54' 19.76928"	-20.731	263647.254	209403.552	4.064	SCIR GCT
CP2009	26º 42' 40.26315"	080º 52' 10.99151"	-21.236	263411.407	212963.056	3.613	SCIR GCT
CP3001	26º 46' 35.72023"	080º 28' 21.56714"	-22.589	270759.895	252441.715	3.058	SCIR GCT
CP3002	26º 46' 35.22419"	080º 35' 47.91439"	-22.087	270699.512	240111.866	3.306	SCIR GCT
CP3003	26º 32' 24.21003"	080º 29' 57.76623"	-20.548	244542.936	249887.037	4.580	SCIR GCT
CP3004	26º 36' 45.70786"	080º 33' 20.98676"	-20.120	252569.981	244233.772	5.002	SND GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Bare Earth and Low Grass Points							
CP3005	26º 25' 40.47228"	080º 36' 36.59860"	-20.683	232079.518	238884.673	4.249	SND GCT
CP3006	26º 34' 23.54727"	080º 42' 38.46698"	-20.182	248150.710	228821.892	4.759	SCIR GCT
CP3008	26º 28' 44.74521"	080º 49' 16.93007"	-18.396	237703.941	217809.885	6.430	SCIR GCT
CP3010	26º 39' 11.06077"	080º 54' 37.65729"	-19.680	256969.586	208913.835	5.081	SCIR GCT
CP5101	26º 39' 52.31371"	080º 41' 03.44833"	-22.007	258274.895	231426.338	3.027	SCIR GCT
CP5102	26º 39' 23.89100"	080º 41' 14.27409"	-21.617	257399.428	231129.139	3.405	SCIR GCT
CP5104	26º 44' 02.24210"	080º 39' 57.93592"	-21.966	265971.287	233217.666	3.204	SND GCT
CP5109	26º 41' 45.83896"	080º 41' 19.18330"	-20.366	261767.660	230982.729	4.706	SND GCT
CP5124	27º 06' 12.91301"	080º 35' 41.99109"	-17.718	306945.926	240159.412	8.986	SND GCT
CP5125	27º 03' 25.21570"	080º 33' 30.30315"	-17.099	301796.775	243804.776	9.513	SND GCT
CP5127	26º 48' 58.96472"	080º 20' 37.02319"	-18.741	275228.291	265251.665	7.317	SCIR GCT
CP5129	26º 41' 04.16548"	080º 19' 22.32066"	-20.817	260626.156	267392.306	4.850	SCIR GCT
CP5130	26º 42' 34.08550"	080º 12' 03.18299"	-20.362	263463.906	279515.841	5.649	SND GCT
CP5132	26º 44' 14.14806"	080º 57' 30.83503"	-19.105	266294.831	204121.870	5.621	SND GCT
CP5139	26º 49' 05.36369"	081º 06' 24.18720"	-20.475	275261.063	189391.286	4.127	SND GCT
CP5147	26º 58' 57.62185"	081º 06' 15.48441"	-19.970	293488.521	189646.613	5.021	SND GCT
CP5149	26º 58' 55.52887"	081º 05' 27.74879"	-19.549	293423.087	190962.801	5.474	SND GCT
CP5150	26º 59' 25.05370"	081º 04' 46.58037"	-20.062	294331.003	192098.534	5.020	SND GCT
CP5152	26º 59' 51.39274"	081º 04' 25.24208"	-20.116	295141.281	192687.337	5.010	SCIR GCT
CP5155	27º 00' 29.79202"	081º 02' 30.08659"	-20.049	296321.643	195862.538	5.215	SND3501
CP5156	27º 07' 25.20220"	080º 53' 52.89939"	-20.804	309110.237	210109.572	5.418	SND GCT
CP5157	27º 08' 10.52667"	080º 53' 32.99554"	-20.336	310505.670	210656.510	5.946	SND GCT
CP5158	27º 08' 05.99982"	080º 52' 57.64868"	-20.809	310367.215	211629.948	5.497	SCIR GCT
CP5159	27º 08' 40.28455"	080º 52' 38.77030"	-21.197	311422.914	212148.758	5.154	SCIR GCT
CP5160	27º 08' 47.91603"	080º 52' 26.50680"	-19.749	311658.127	212486.184	6.617	SND GCT
CP5161	27º 08' 47.10364"	080º 52' 04.32019"	-20.480	311633.751	213097.082	5.901	SND GCT
CP5163	27º 08' 49.53210"	080º 51' 52.19018"	-20.507	311708.849	213430.982	5.885	SCIR GCT
CP5164	27º 08' 56.32890"	080º 51' 52.08426"	-20.659	311918.042	213433.673	5.739	SND GCT
CP5165	27º 09' 08.83862"	080º 52' 07.69251"	-19.669	312302.605	213003.532	6.728	SND GCT
CP5166	27º 09' 11.52791"	080º 52' 19.94250"	-20.533	312385.027	212666.181	5.858	SND GCT
CP5170	27º 09' 44.94219"	080º 51' 41.52588"	-21.994	313414.563	213722.724	4.449	SND GCT
CP5172	27º 09' 55.41870"	080º 51' 39.88551"	-20.585	313737.056	213767.526	5.867	SND GCT
CP5175	27º 10' 25.80542"	080º 51' 21.00793"	-20.696	314672.877	214286.128	5.789	SND GCT
CP5192	27º 14' 07.56806"	080º 49' 46.57504"	-19.445	321501.529	216876.276	7.188	SND GCT

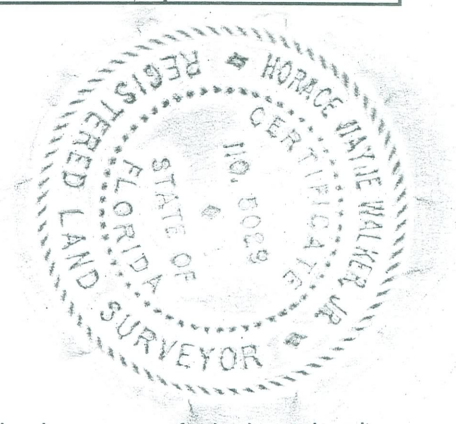
LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Bare Earth and Low Grass Points							
CP5209	27º 16' 16.54212"	080º 49' 50.63090"	-18.363	325470.958	216759.323	8.282	SND GCT
CP5212	27º 16' 41.62764"	080º 50' 30.77367"	-17.167	326241.601	215654.308	9.456	SND GCT
CP5213	27º 16' 46.59689"	080º 50' 54.80308"	-16.428	326393.727	214993.289	10.180	SND GCT
CP5214	27º 16' 22.16253"	080º 50' 54.76449"	-17.129	325641.682	214995.261	9.479	SND GCT
CP5215	27º 16' 46.25706"	080º 51' 08.95669"	-16.921	326382.803	214604.066	9.679	SND GCT
CP5216	27º 16' 21.90008"	080º 51' 08.99879"	-16.667	325633.137	214603.793	9.933	SCIR GCT
CP5217	27º 16' 46.30702"	080º 51' 26.54524"	-16.316	326383.779	214120.367	10.274	SND GCT
CP5218	27º 16' 21.45146"	080º 51' 26.42449"	-16.608	325618.773	214124.560	9.982	SND GCT
CP5219	27º 16' 46.45433"	080º 51' 44.04679"	-16.246	326387.773	213639.056	10.333	SND GCT
CP5220	27º 15' 56.97500"	080º 51' 43.77541"	-17.140	324864.897	213648.198	9.438	SND GCT
CP5223	27º 16' 15.28204"	080º 52' 50.67821"	-16.409	325426.462	211807.559	10.127	SCIR GCT
CP5224	27º 15' 27.52585"	080º 52' 51.05778"	-16.762	323956.606	211798.520	9.772	SND GCT
CP5225	27º 16' 15.14491"	080º 54' 25.13992"	-16.813	325420.037	209209.598	9.661	SND GCT
CP5226	27º 15' 55.68447"	080º 53' 45.71424"	-17.156	324821.935	210294.414	9.342	SND GCT
CP5306	26º 20' 56.40085"	080º 57' 37.61887"	-19.355	223279.149	203947.682	5.447	SCIR GCT
CP5313	26º 24' 28.95863"	080º 59' 57.06480"	-18.741	229819.851	200081.340	6.010	SCIR GCT



(BS) = Base Station Monitoring Control Setup
CERP = Comprehensive Everglades Restoration Plan
FDEP = Florida Department of Environmental Protection
FDOT = Florida Department of Transportation
GCT = Gustin, Cothern & Tucker, Inc.
NGS = National Geodetic Survey
SFWMD = South Florida Water Management District
USC&GS = United States Coast & Geodetic Survey
USE = United States Engineering Department
FBD = Found Brass Disc
FCM = Found Concrete Monument

FDR = Found Encased Stainless Steel Deep Rod
SAD = Set Aluminum Capped Iron Rod, GCT LB 3501
SCIR = Set Capped Iron Rod, GCT GPS/Trav
SND = Set Nail & Brass Disc, GCT LB 3501

I hereby certify that the preceeding data meets or exceeds second order accuracy for horizontal and third order accuracy for vertical as required in the provided document "Florida GIS - Baseline Specifications for Orthophotography and LiDAR".

Horace Wayne Walker, Jr. - Florida PSM No 5029

Gustin, Cothern and Tucker, Inc.
121 Hart Street, Niceville, Fl 32578

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Brush Points							
CP1023	26º 57' 17.04244"	080º 33' 50.76583"	-18.922	290463.359	243280.057	7.244	SCIR GCT
CP1031	26º 49' 16.68380"	080º 17' 34.79203"	-19.872	275800.653	270280.939	6.321	SCIR GCT
CP1033	26º 48' 43.12065"	080º 14' 40.35030"	-19.913	274795.396	275104.113	6.361	SCIR GCT
CP1037	26º 45' 05.93575"	080º 08' 05.69734"	-20.420	268180.387	286048.541	5.916	SCIR GCT
CP1052	26º 30' 54.27104"	080º 26' 47.11207"	-20.162	241796.689	255176.511	5.020	SCIR GCT
CP1098	26º 56' 36.97795"	081º 16' 38.78578"	-13.327	289185.901	172450.507	11.252	SCIR GCT
CP1099	26º 57' 56.51387"	081º 16' 40.17716"	-13.839	291633.860	172417.509	10.773	SCIR GCT
CP1103	27º 03' 10.69489"	081º 14' 47.21940"	-14.767	301296.995	175551.514	10.080	SCIR GCT
CP1189	27º 05' 26.99479"	080º 36' 39.69660"	-18.651	305527.647	238574.326	7.988	SCIR GCT
CP1199	26º 33' 44.40976"	080º 30' 59.44746"	-20.809	247004.583	248170.324	4.314	SCIR GCT
CP1201	26º 33' 43.89418"	080º 36' 29.33818"	-20.910	246957.529	239040.450	4.108	SCIR GCT
CP1206	26º 50' 29.01210"	080º 28' 04.35244"	-20.984	277941.878	252887.181	4.909	SCIR GCT
CP1208	26º 27' 24.28439"	080º 44' 13.62643"	-20.865	235242.204	226215.003	4.008	SCIR GCT
CP1226	26º 58' 19.38614"	081º 15' 08.65423"	-15.641	292332.503	174942.909	9.020	SCIR GCT
CP1227	26º 58' 47.27912"	081º 08' 56.80748"	-18.105	293174.667	185198.004	6.769	SCIR GCT
CP1232	27º 07' 47.87404"	080º 58' 44.86738"	-19.737	309804.090	202068.958	6.233	SCIR GCT
CP1252	26º 24' 14.14504"	080º 52' 53.82116"	-20.147	229369.398	211810.720	4.646	SCIR GCT
CP1303-PA1	26º 42' 46.07378"	080º 52' 10.97230"	-21.423	263590.234	212963.404	3.428	SCIR GCT
CP5300	26º 55' 15.52359"	080º 33' 24.19726"	-21.015	286725.895	244025.946	5.018	SCIR GCT
CP5301	26º 37' 38.90996"	080º 25' 10.39702"	-21.400	254261.702	257797.853	3.967	SCIR GCT
CP5302	26º 25' 19.03053"	080º 28' 57.54041"	-21.914	231464.461	251606.840	3.143	SCIR GCT
CP5303	26º 22' 42.56631"	080º 55' 27.81416"	-20.489	226547.912	207544.754	4.301	SCIR GCT
CP5304	26º 22' 07.19291"	080º 55' 49.39012"	-20.275	225458.985	206947.275	4.518	SCIR GCT
CP5305	26º 21' 37.04937"	080º 55' 48.11685"	-20.245	224531.361	206983.074	4.551	SCIR GCT
CP5306	26º 20' 56.40085"	080º 57' 37.61887"	-19.355	223279.149	203947.682	5.447	SCIR GCT
CP5307	26º 18' 56.75460"	080º 57' 39.45677"	-20.029	219597.133	203897.837	4.787	SCIR GCT
CP5308	26º 18' 57.10260"	080º 56' 54.74705"	-19.475	219608.276	205137.815	5.338	SCIR GCT
CP5309	26º 19' 00.20032"	080º 53' 44.29597"	-20.081	219706.789	210419.722	4.717	SCIR GCT
CP5310	26º 20' 19.45658"	080º 54' 14.76503"	-20.611	222145.172	209572.886	4.188	SCIR GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Brush Points							
CP5311	26º 20' 57.30468"	080º 54' 56.99837"	-20.832	223309.097	208401.054	3.967	SCIR GCT
CP5312	26º 19' 58.50907"	081º 00' 07.85145"	-19.187	221496.979	199782.279	5.619	SCIR GCT
CP5313	26º 24' 28.95863"	080º 59' 57.06480"	-18.741	229819.851	200081.340	6.010	SCIR GCT
CP5314	26º 25' 58.72601"	081º 05' 51.15186"	-17.075	232586.077	190270.946	7.600	SCIR GCT
CP5315	26º 26' 03.15141"	080º 57' 10.71580"	-19.676	232719.437	204690.157	5.074	SCIR GCT
CP5316	26º 29' 50.55790"	080º 39' 48.03872"	-20.697	239760.919	233560.164	4.243	SCIR GCT
CP5317	26º 26' 57.09911"	080º 48' 50.96387"	-20.850	234392.183	218533.812	3.976	SCIR GCT
CP5318	26º 29' 03.44781"	080º 58' 49.12761"	-19.076	238267.280	201962.728	5.626	SCIR GCT
CP5319	26º 28' 33.59368"	081º 01' 42.65665"	-17.614	237348.693	197156.840	7.062	SCIR GCT
CP5320	26º 28' 26.02060"	081º 04' 39.70281"	-17.221	237117.660	192253.261	7.430	SCIR GCT
CP5321	26º 27' 33.37725"	081º 06' 18.20557"	-17.725	235499.519	189523.771	6.922	SCIR GCT
CP5322	26º 28' 53.72893"	081º 07' 30.22922"	-17.213	237974.102	187531.132	7.403	SCIR GCT
CP5323	26º 29' 35.68824"	081º 05' 33.76431"	-17.178	239262.656	190757.502	7.449	SCIR GCT
CP5324	26º 29' 34.35724"	081º 05' 12.16582"	-17.405	239221.277	191355.574	7.227	SCIR GCT
CP5326	26º 28' 37.64872"	080º 56' 48.32756"	-20.337	237474.270	205308.473	4.396	SCIR GCT
CP5327	26º 33' 57.78459"	080º 50' 33.43864"	-20.694	247334.940	215679.153	4.128	SCIR GCT
CP5328	26º 33' 00.98079"	080º 56' 52.33359"	-19.095	245578.227	205194.232	5.621	SCIR GCT
CP5329	26º 33' 05.55755"	080º 59' 21.26378"	-19.221	245718.066	201072.129	5.450	SCIR GCT
CP5330	26º 35' 04.13395"	081º 04' 45.55517"	-16.914	249369.665	192098.748	7.674	SCIR GCT
CP5331	26º 35' 07.60641"	081º 02' 44.93746"	-17.771	249474.900	195436.254	6.842	SCIR GCT
CP5332	26º 35' 16.76892"	081º 00' 27.74750"	-18.789	249756.084	199232.256	5.856	SCIR GCT
CP5333	26º 21' 49.35870"	080º 33' 35.17659"	-20.495	224983.232	243935.766	4.426	SCIR GCT
CP5334	26º 29' 13.52305"	080º 34' 57.09082"	-21.963	238644.819	241620.523	3.034	SCIR GCT
CP5336	26º 23' 45.58522"	080º 39' 56.66948"	-20.944	228528.311	233350.353	3.929	SCIR GCT
CP5337	26º 40' 39.67718"	080º 32' 19.26600"	-22.544	259776.665	245915.185	2.707	SCIR GCT
CP5338	26º 37' 09.99805"	080º 38' 24.89708"	-22.242	253291.106	235824.472	2.790	SCIR GCT
CP5339	26º 37' 22.26654"	080º 42' 42.01719"	-21.299	253650.651	228711.256	3.670	SCIR GCT
CP5340	26º 39' 10.96967"	080º 46' 22.26097"	-21.396	256983.766	222613.206	3.533	SCIR GCT
CP5341	26º 43' 32.19696"	080º 38' 08.33708"	-22.155	265054.916	236248.973	3.042	SCIR GCT

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Brush Points							
CP5342	26º 43' 29.73604"	080º 27' 04.08632"	-22.106	265044.970	254606.741	3.424	SCIR GCT
CP5343	26º 48' 46.65584"	080º 33' 53.50969"	-21.628	274754.947	243258.325	3.947	SCIR GCT
CP5345	27º 09' 53.75894"	080º 38' 24.56016"	-17.929	313729.481	235662.101	8.869	SCIR GCT

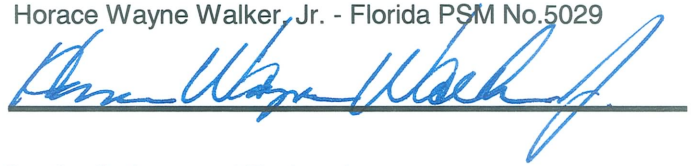
HORACE WAYNE WALKER JR. CERTIFICATE NO. 5029 STATE OF FLORIDA REGISTERED LAND SURVEYOR

(BS) = Base Station Monitoring Control Setup
CERP = Comprehensive Everglades Restoration Plan
FDEP = Florida Department of Environmental Protection
FDOT = Florida Department of Transportation
GCT = Gustin, Cothern & Tucker, Inc.
NGS = National Geodetic Survey
SFWMD = South Florida Water Management District
USC&GS = United States Coast & Geodetic Survey
USE = United States Engineering Department
FBD = Found Brass Disc
FCM = Found Concrete Monument

FDR = Found Encased Stainless Steel Deep Rod
SAD = Set Aluminum Capped Iron Rod, GCT LB 3501
SCIR = Set Capped Iron Rod, GCT GPS/Trav
SND = Set Nail & Brass Disc, GCT LB 3501

I hereby certify that the preceeding data meets or exceeds second order accuracy for horizontal and third order accuracy for vertical as required in the provided document "Florida GIS - Baseline Specifications for Orthophotography and LiDAR".

Horace Wayne Walker, Jr. - Florida PSM No.5029



LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Sugarcane Points							
CP5400	26º53' 58.47574"	80º34' 47.03463"	-23.048	284346.793	241748.427	2.836	Ground Shot
CP5401	26º53' 55.23657"	80º31' 57.30538"	-21.695	284263.515	246432.325	4.296	Ground Shot
CP5402	26º52' 40.20165"	80º34' 47.42315"	-22.248	281937.719	241745.696	3.545	Ground Shot
CP5403	26º52' 41.49506"	80º30' 57.77421"	-22.031	282000.135	248083.722	3.909	Ground Shot
CP5404	26º50' 29.48876"	80º34' 47.44915"	-22.805	277914.789	241758.307	2.842	Ground Shot
CP5405	26º50' 29.23471"	80º31' 27.62683"	-22.882	277926.443	247275.076	2.889	Ground Shot
CP5406	26º48' 44.66566"	80º28' 02.73543"	-22.867	274730.596	252945.296	2.919	Ground Shot
CP5407	26º48' 45.19398"	80º31' 24.27230"	-22.934	274724.747	247379.710	2.730	Ground Shot
CP5408	26º48' 47.56736"	80º35' 17.15198"	-22.773	274775.299	240948.444	2.754	Ground Shot
CP5409	26º48' 47.47501"	80º37' 13.96889"	-22.605	274762.408	237722.556	2.859	Ground Shot
CP5410	26º47' 28.15443"	80º36' 47.15392"	-22.058	272323.432	238470.484	3.350	Ground Shot
CP5411	26º47' 02.21582"	80º34' 49.34391"	-22.298	271535.455	241727.071	3.150	Ground Shot
CP5412	26º47' 06.49622"	80º31' 25.34484"	-22.922	271687.044	247361.476	2.646	Ground Shot
CP5413	26º47' 00.74601"	80º28' 04.41830"	-23.334	271532.081	252912.215	2.347	Ground Shot
CP5414	26º44' 51.82891"	80º37' 08.55565"	-22.533	267510.518	237893.770	2.743	Ground Shot
CP5415	26º44' 51.22915"	80º34' 44.12050"	-22.472	267504.631	241884.695	2.874	Ground Shot
CP5416	26º46' 09.91290"	80º31' 24.49591"	-22.489	269945.689	247391.451	3.028	Ground Shot
CP5417	26º42' 41.41595"	80º40' 02.22204"	-22.159	263483.468	233105.719	2.966	Ground Shot
CP5418	26º42' 39.51123"	80º36' 41.93901"	-21.926	263440.506	238641.624	3.278	Ground Shot
CP5419	26º42' 42.77417"	80º33' 15.76683"	-22.498	263559.569	244339.821	2.802	Ground Shot
CP5420	26º42' 44.16869"	80º29' 24.21218"	-22.557	263626.477	250739.744	2.864	Ground Shot
CP5421	26º40' 55.93404"	80º39' 05.24092"	-22.296	260241.369	234689.520	2.801	Ground Shot
CP5422	26º40' 56.21262"	80º36' 42.42053"	-21.672	260261.342	238637.992	3.477	Ground Shot
CP5423	26º40' 41.73026"	80º33' 11.48087"	-22.351	259834.714	244471.334	2.878	Ground Shot
CP5424	26º40' 43.83698"	80º29' 52.17167"	-21.473	259920.041	249981.536	3.854	Ground Shot
CP5425	26º40' 41.60621"	80º23' 48.68153"	-22.562	259894.910	260031.578	2.952	Ground Shot
CP5426	26º38' 58.71262"	80º36' 51.80468"	-22.099	256644.386	238389.475	2.997	Ground Shot
CP5427	26º38' 58.13550"	80º32' 29.45904"	-22.365	256650.595	245644.591	2.831	Ground Shot
CP5428	26º35' 55.76313"	80º37' 23.97829"	-22.225	251011.330	237516.319	2.805	Ground Shot

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Sugarcane Points							
CP5429	26º35' 55.21837"	80º32' 33.78478"	-22.483	251020.727	245545.099	2.640	Ground Shot
CP5430	26º35' 55.08018"	80º26' 49.81382"	-22.101	251054.035	255061.771	3.173	Ground Shot
CP5431	26º34' 11.32301"	80º37' 24.66535"	-22.308	247797.073	237506.762	2.702	Ground Shot
CP5432	26º34' 36.41189"	80º33' 08.28173"	-22.511	248592.026	244599.158	2.578	Ground Shot
CP5433	26º34' 12.24549"	80º29' 28.37438"	-22.339	247871.010	250687.437	2.828	Ground Shot
CP5444	26º32' 38.72375"	80º31' 37.85288"	-22.607	244979.088	247114.886	2.487	Ground Shot
CP5445	26º32' 26.37037"	80º26' 49.53308"	-22.514	244630.828	255097.264	2.692	Ground Shot
CP5446	26º30' 40.98475"	80º40' 18.70076"	-22.538	241310.613	232707.136	2.403	Ground Shot
CP5447	26º30' 40.75288"	80º37' 24.41585"	-22.749	241316.724	237532.697	2.228	Ground Shot
CP5448	26º30' 42.20207"	80º34' 48.51282"	-22.966	241374.715	241849.156	2.049	Ground Shot
CP5449	26º30' 42.16183"	80º32' 07.74203"	-22.812	241388.812	246300.542	2.250	Ground Shot
CP5450	26º30' 41.92895"	80º29' 43.15734"	-22.817	241396.759	250303.811	2.294	Ground Shot
CP5451	26º28' 20.72126"	80º38' 34.19276"	-22.439	237001.715	235612.719	2.501	Ground Shot
CP5452	26º28' 21.26738"	80º33' 07.23955"	-22.368	237046.885	244668.311	2.650	Ground Shot
CP5453	26º28' 50.57807"	80º27' 13.97825"	-22.626	237986.776	254448.851	2.517	Ground Shot
CP5454	26º25' 44.96888"	80º36' 32.37135"	-22.872	232218.256	239001.380	2.062	Ground Shot
CP5455	26º25' 18.19594"	80º32' 38.10232"	-21.824	231415.675	245495.304	3.162	Ground Shot
CP5456	26º25' 20.69363"	80º29' 05.03969"	-22.706	231514.811	251398.835	2.349	Ground Shot
CP5459	26º20' 20.50780"	80º32' 23.37660"	-22.388	222255.814	245936.038	2.534	Ground Shot
CP5460	26º22' 46.96420"	80º30' 44.69582"	-21.487	226773.029	248655.338	3.499	Ground Shot
CP5462	26º26' 11.85025"	80º41' 20.02529"	-22.283	233023.788	231029.256	2.607	Ground Shot
CP5463	26º26' 11.41680"	80º44' 12.54823"	-22.426	232999.784	226249.458	2.440	Ground Shot
CP5464	26º26' 13.44193"	80º48' 39.79278"	-22.303	233049.100	218845.250	2.523	Ground Shot
CP5465	26º28' 43.44740"	80º41' 22.62177"	-22.418	237688.996	230946.059	2.496	Ground Shot
CP5466	26º28' 44.56435"	80º44' 17.69516"	-22.219	237712.576	226097.267	2.665	Ground Shot
CP5467	26º28' 45.47736"	80º49' 14.62428"	-22.160	237726.562	217873.713	2.667	Ground Shot
CP5468	26º31' 21.66395"	80º44' 18.58471"	-22.216	242547.262	226062.784	2.684	Ground Shot
CP5469	26º31' 22.40262"	80º49' 52.68035"	-21.901	242554.488	216813.402	2.924	Ground Shot
CP5470	26º33' 56.57403"	80º44' 21.13479"	-22.039	247314.500	225982.488	2.876	Ground Shot

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Sugarcane Points							
CP5471	26º36' 36.52946"	80º44' 24.27701"	-22.467	252237.007	225885.534	2.469	Ground Shot
CP5472	26º36' 38.49346"	80º46' 51.71362"	-22.373	252289.815	221806.779	2.522	Ground Shot
CP5473	26º36' 35.70669"	80º50' 10.96798"	-22.009	252195.808	216294.801	2.829	Ground Shot
CP5474	26º39' 10.88589"	80º44' 26.32446"	-22.103	256987.294	225819.255	2.861	Ground Shot
CP5475	26º39' 12.15045"	80º46' 52.02282"	-22.238	257018.668	221790.128	2.682	Ground Shot
CP5476	26º39' 12.34091"	80º49' 30.81377"	-22.103	257017.763	217399.025	2.765	Ground Shot
CP5477	26º29' 02.32546"	80º53' 01.21026"	-22.054	238237.840	211597.927	2.727	Ground Shot
CP5478	26º31' 41.13957"	80º53' 02.37514"	-21.934	243125.290	211561.251	2.847	Ground Shot
CP5479	26º35' 41.23491"	80º53' 37.54036"	-21.427	250513.398	210581.633	3.346	Ground Shot
CP5480	26º40' 04.21779"	80º57' 30.93899"	-20.784	258603.062	204121.496	3.913	Ground Shot
CP5481	26º40' 14.10239"	80º59' 54.88442"	-19.071	258906.598	200141.441	5.571	Ground Shot
CP5482	26º42' 39.61822"	80º58' 00.23886"	-19.497	263385.366	203310.115	5.199	Ground Shot
CP5483	26º42' 35.92418"	80º59' 43.63727"	-19.757	263271.256	200452.259	4.898	Ground Shot
CP5484	26º42' 35.31999"	81º01' 55.88686"	-19.498	263253.058	196796.934	5.109	Ground Shot
CP5485	26º45' 11.36803"	80º59' 43.28309"	-19.657	268055.161	200461.874	5.025	Ground Shot
CP5486	26º45' 11.03366"	81º01' 53.15580"	-19.523	268045.248	196873.602	5.107	Ground Shot
CP5487	26º46' 46.06902"	81º01' 48.34796"	-21.969	270970.018	197007.131	2.687	Ground Shot
CP5488	26º45' 11.66338"	81º07' 49.45170"	-18.523	268070.887	187029.465	5.994	Ground Shot
CP5489	26º46' 06.35486"	81º11' 26.88165"	-19.350	269761.652	181024.580	5.133	Ground Shot
CP5490	26º49' 35.04815"	81º07' 24.25470"	-20.406	276176.141	187733.505	4.188	Ground Shot
CP5491	26º53' 04.88817"	81º08' 19.80605"	-19.645	282635.839	186206.722	5.022	Ground Shot
CP5492	26º50' 47.93461"	81º11' 59.41326"	-19.136	278428.992	180139.509	5.400	Ground Shot
CP5493	26º54' 09.31862"	81º08' 20.31743"	-19.927	284618.801	186194.785	4.776	Ground Shot
CP5494	26º53' 51.47901"	81º09' 50.14836"	-18.957	284072.723	183715.374	5.695	Ground Shot
CP5495	26º59' 33.60278"	81º05' 28.16715"	-20.776	294594.893	190952.112	4.282	Ground Shot
CP5496	27º00' 39.20336"	81º06' 35.71827"	-19.355	296615.365	189091.419	5.715	Ground Shot
CP5497	27º01' 14.09042"	81º06' 29.00308"	-19.276	297688.926	189277.453	5.833	Ground Shot
CP5498	27º02' 04.01699"	81º04' 05.64845"	-20.282	299222.758	193229.738	4.999	Ground Shot
CP5499	27º03' 27.63326"	81º03' 58.93329"	-19.784	301796.130	193416.168	5.594	Ground Shot

LiDAR Support - HHD/FDEM

Merrick and Company, Inc.

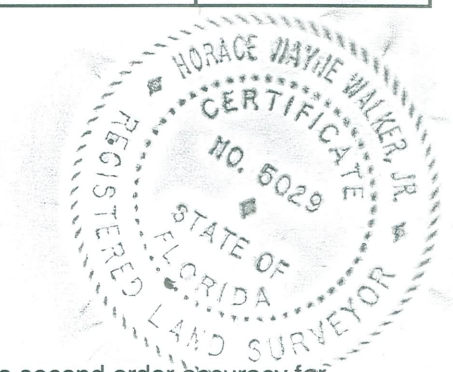
Fixed Horizontal and Vertical Control

Fixed Vertical Control

Name	Latitude (N)	Longitude (W)	Ellipsoid (m)	Northing (m)	Easting (m)	NAVD88 (m)	Desc
Sugarcane Points							
CP5500	27º05' 12.29726"	81º05' 22.22244"	-18.523	305018.824	191123.416	6.886	Ground Shot
CP5501	27º05' 39.49386"	81º06' 38.42680"	-17.497	305857.534	189024.873	7.866	Ground Shot
CP5502	27º06' 07.63762"	81º04' 50.61035"	-18.455	306721.466	191995.359	7.041	Ground Shot
CP5503	27º07' 22.07155"	81º05' 01.40833"	-18.071	309012.547	191699.463	7.488	Ground Shot
CP5506	27º07' 38.12730"	81º05' 09.52424"	-18.267	309506.854	191476.295	7.300	Ground Shot
CP5507	27º08' 46.36527"	80º55' 33.80540"	-21.013	311606.293	207329.253	5.199	Ground Shot
CP5508	27º09' 14.52884"	80º56' 03.45784"	-20.740	312472.647	206512.366	5.468	Ground Shot
CP5509	27º12' 03.02779"	80º51' 17.45540"	-21.361	317665.283	214380.454	5.181	Ground Shot
CP5510	27º11' 17.55756"	80º53' 58.64861"	-20.917	316261.463	209945.526	5.489	Ground Shot
CP5511	27º10' 57.88171"	80º53' 43.32926"	-21.294	315656.229	210367.668	5.113	Ground Shot
CP5512	27º11' 26.94241"	80º50' 58.38880"	-22.490	316555.271	214906.502	4.046	Ground Shot
CP5513	27º10' 34.51185"	80º53' 24.59651"	-20.019	314937.398	210883.908	6.386	Ground Shot
CP5514	27º10' 17.95677"	80º51' 26.87367"	-21.811	314431.129	214124.938	4.666	Ground Shot
CP5515	27º09' 28.33273"	80º52' 40.00574"	-20.869	312901.691	212113.302	5.521	Ground Shot

(BS) = Base Station Monitoring Control Setup
CERP = Comprehensive Everglades Restoration Plan
FDEP = Florida Department of Environmental Protection
FDOT = Florida Department of Transportation
GCT = Gustin, Cothern & Tucker, Inc.
NGS = National Geodetic Survey
SFWMD = South Florida Water Management District
USC&GS = United States Coast & Geodetic Survey
USE = United States Engineering Department
FBD = Found Brass Disc
FCM = Found Concrete Monument

FDR = Found Encased Stainless Steel Deep Rod
SAD = Set Aluminum Capped Iron Rod, GCT LB 3501
SCIR = Set Capped Iron Rod, GCT GPS/Trav
SND = Set Nail & Brass Disc, GCT LB 3501



I hereby certify that the preceeding data meets or exceeds second order accuracy for horizontal and third order accuracy for vertical as required in the provided document "Florida GIS - Baseline Specifications for Orthophotography and LiDAR".

Horace Wayne Walker, Jr. - Florida PSM No.5029

Gustin, Cothern and Tucker, Inc.
121 Hart Street, Niceville, Fl 32578

3 ~ SKETCHES W / PHOTOS – HHD-LAKE OKEECHOBEE AREA ~ 3

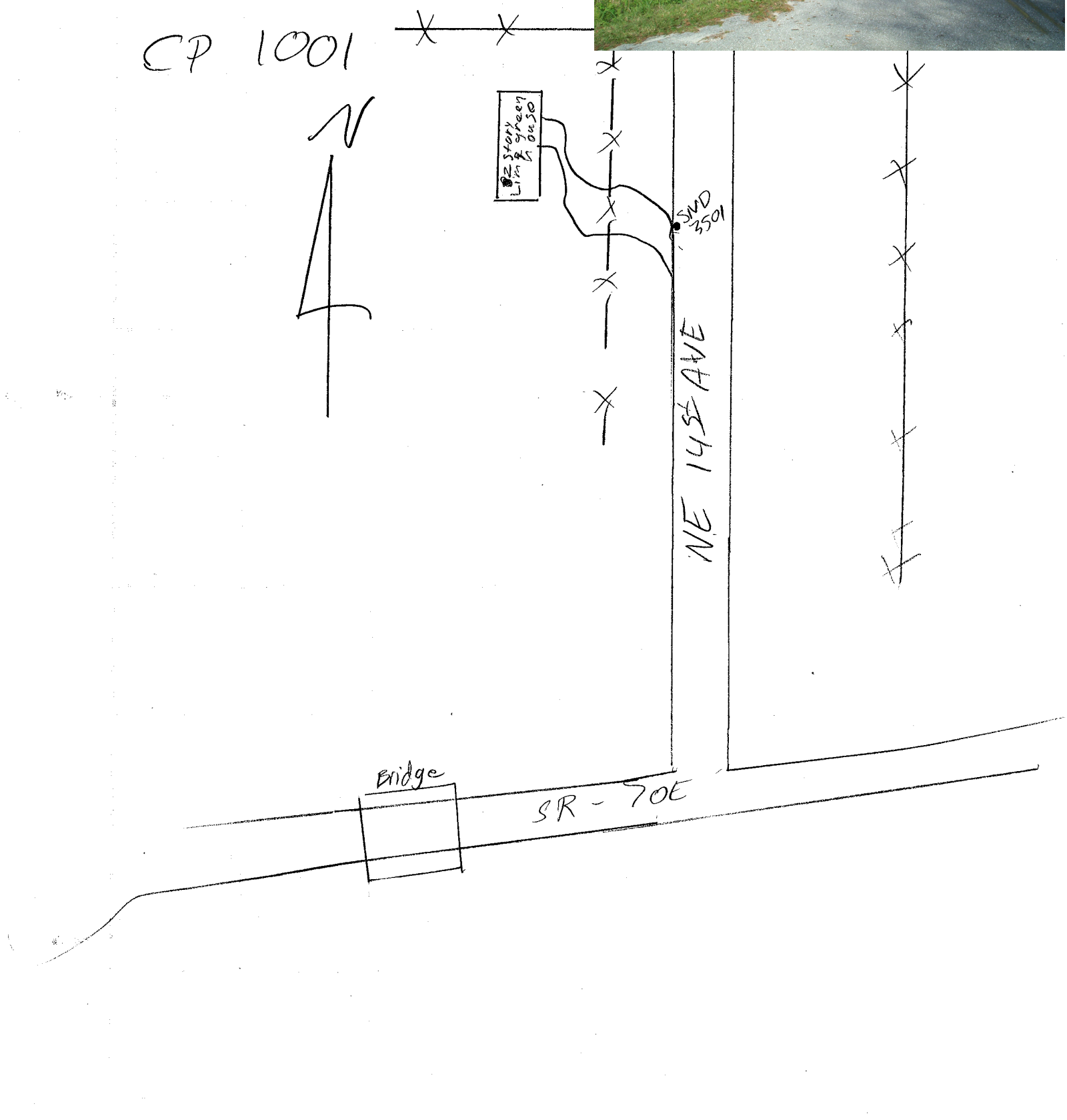
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____

SUBJECT _____

BY _____





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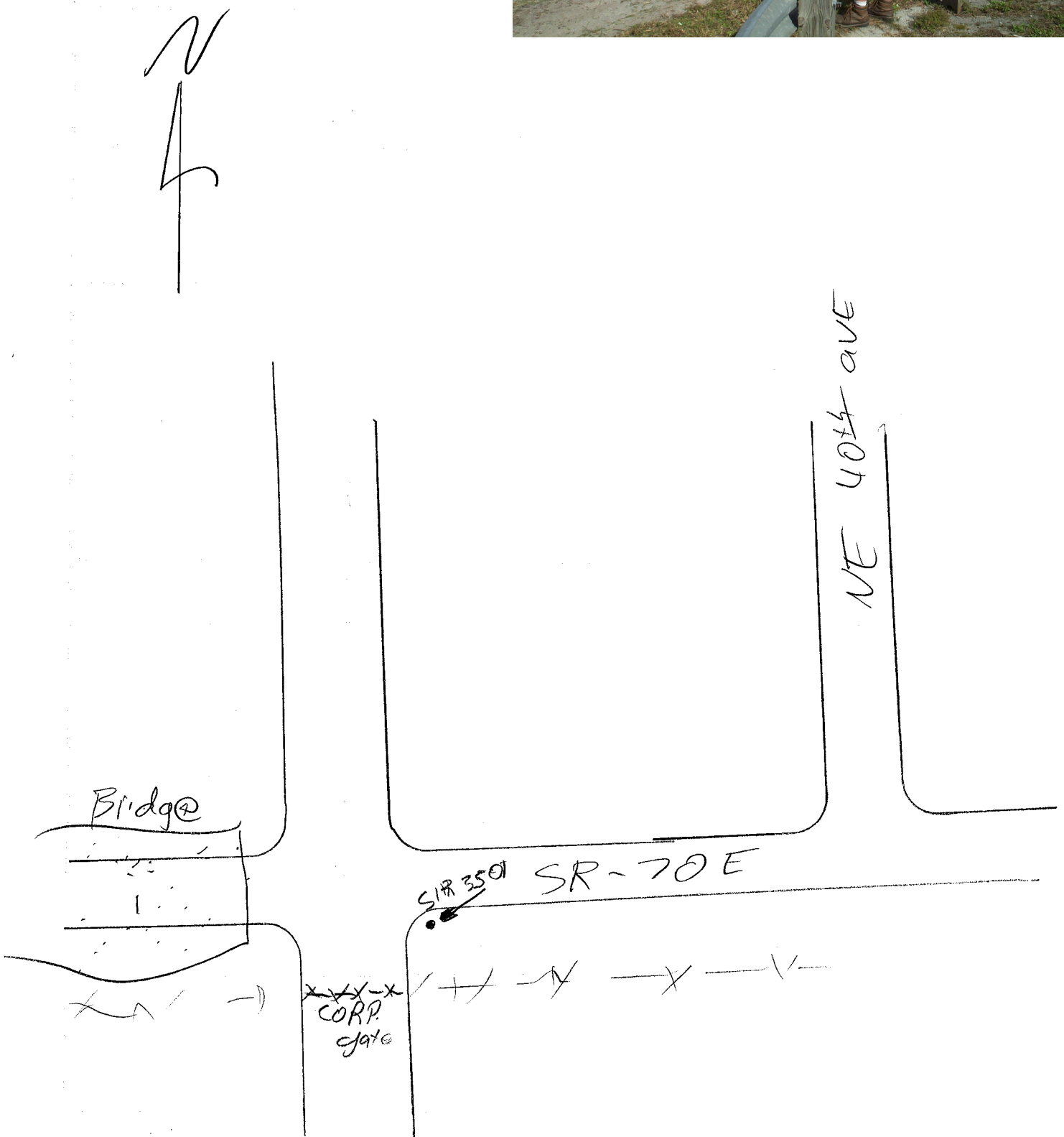
CP 1002



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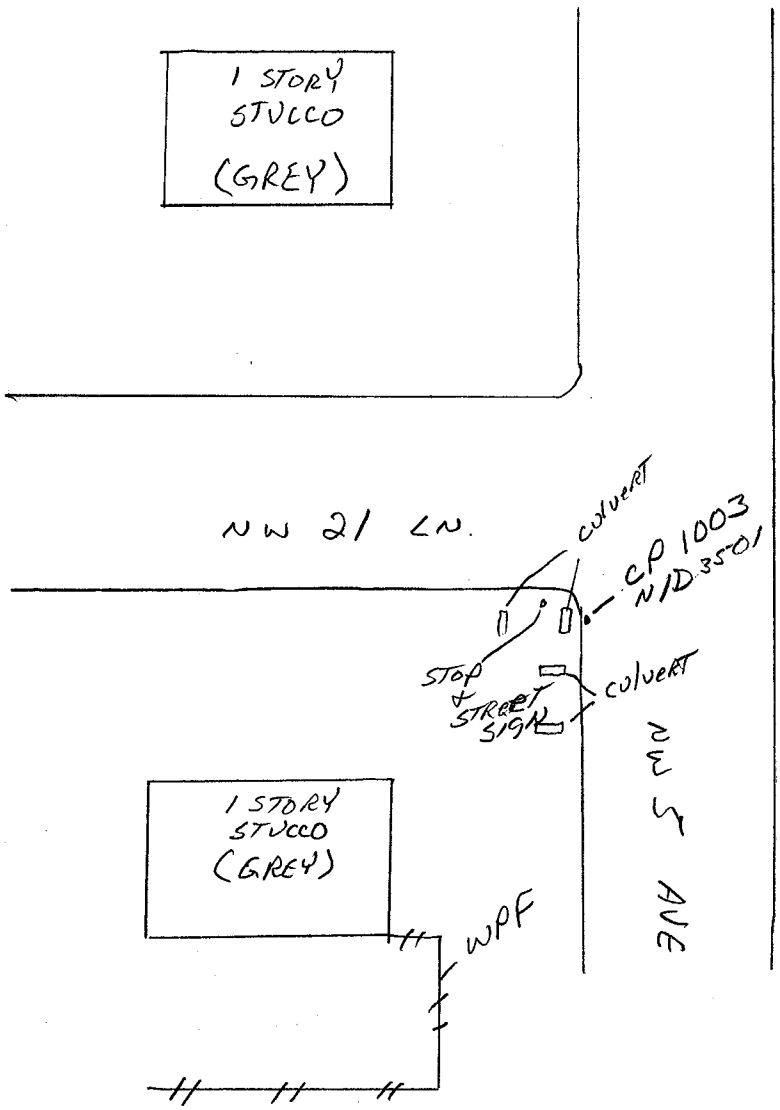
OF _____

CP 1003







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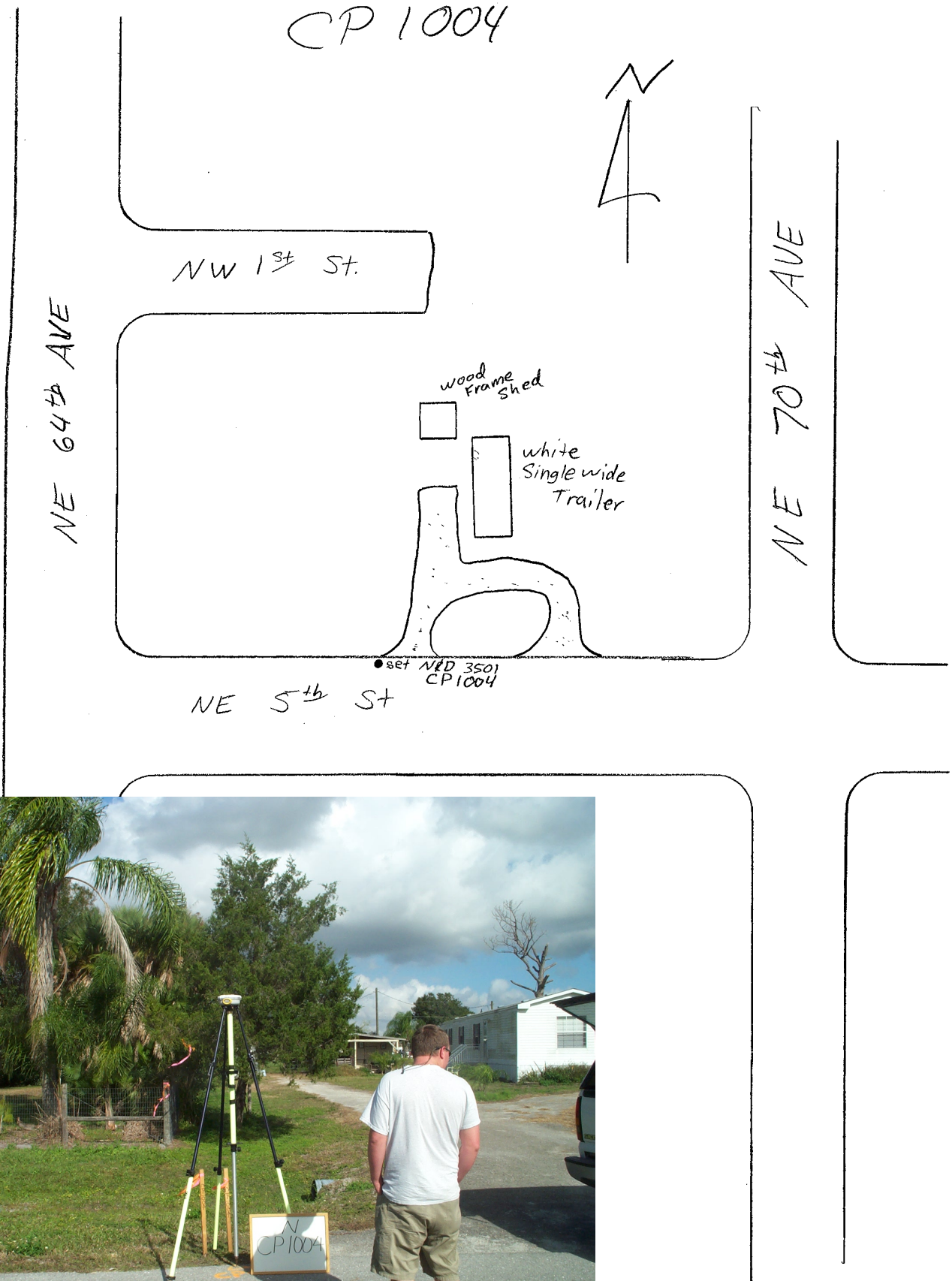

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CP1005



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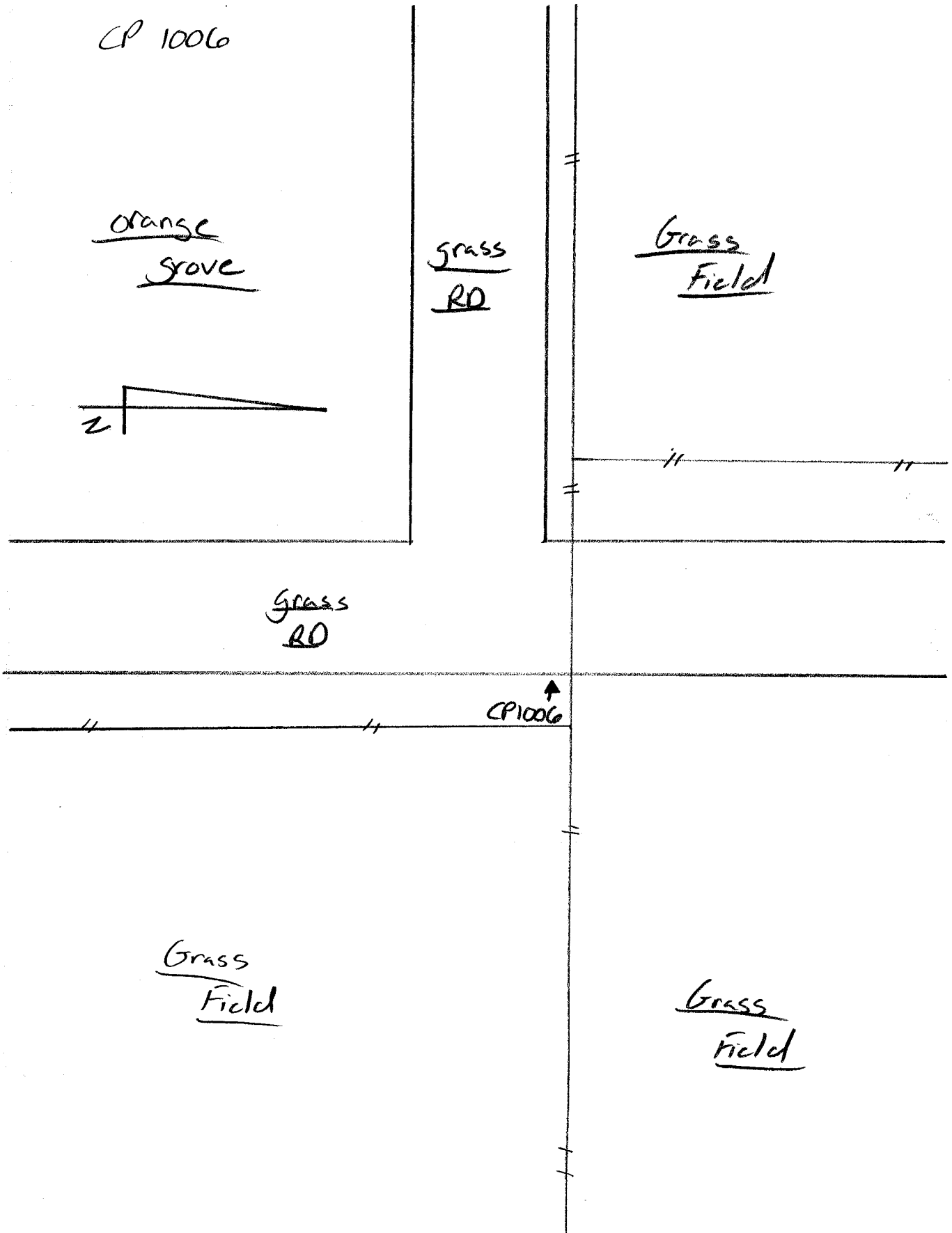

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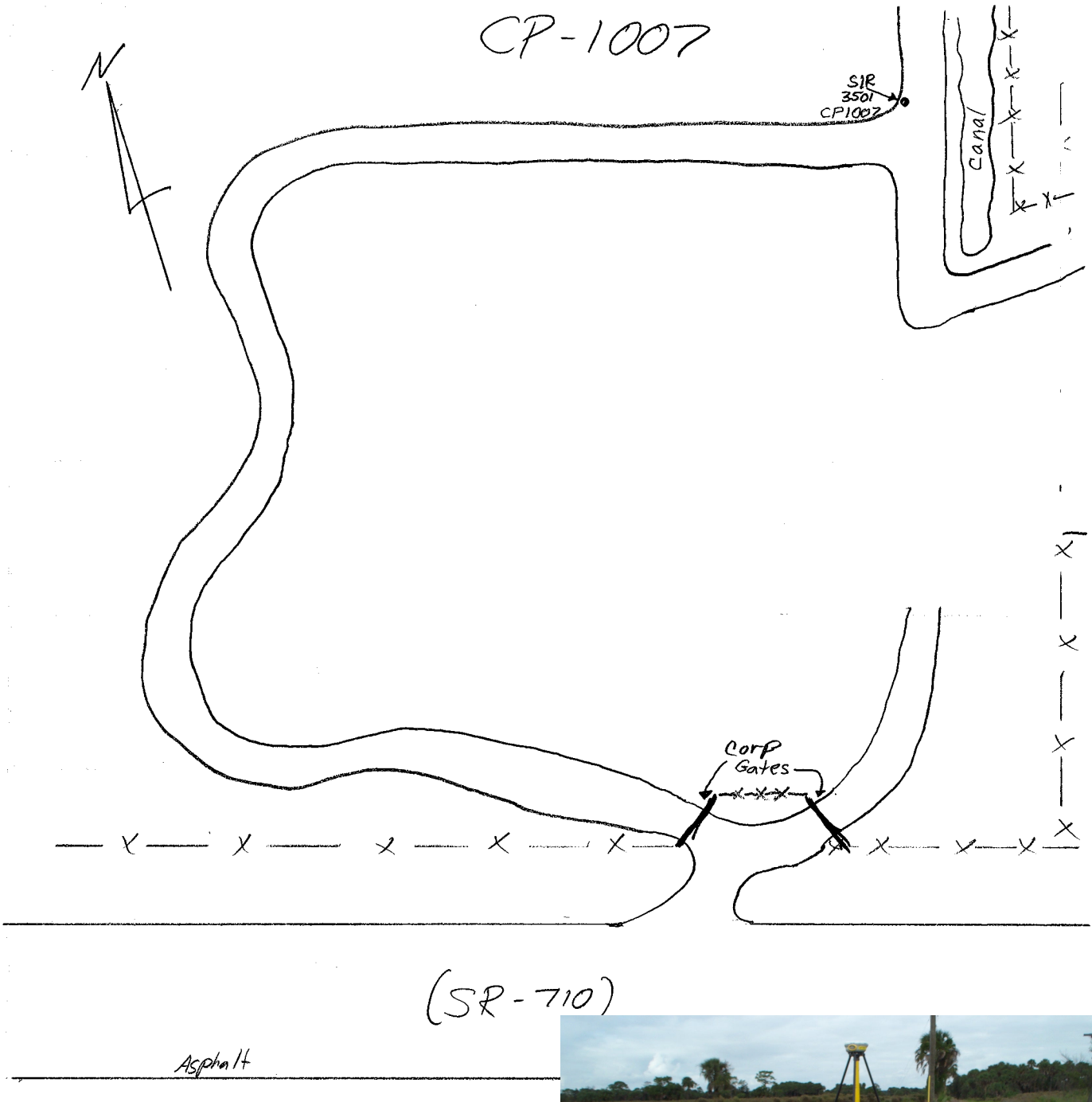



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CP-1008



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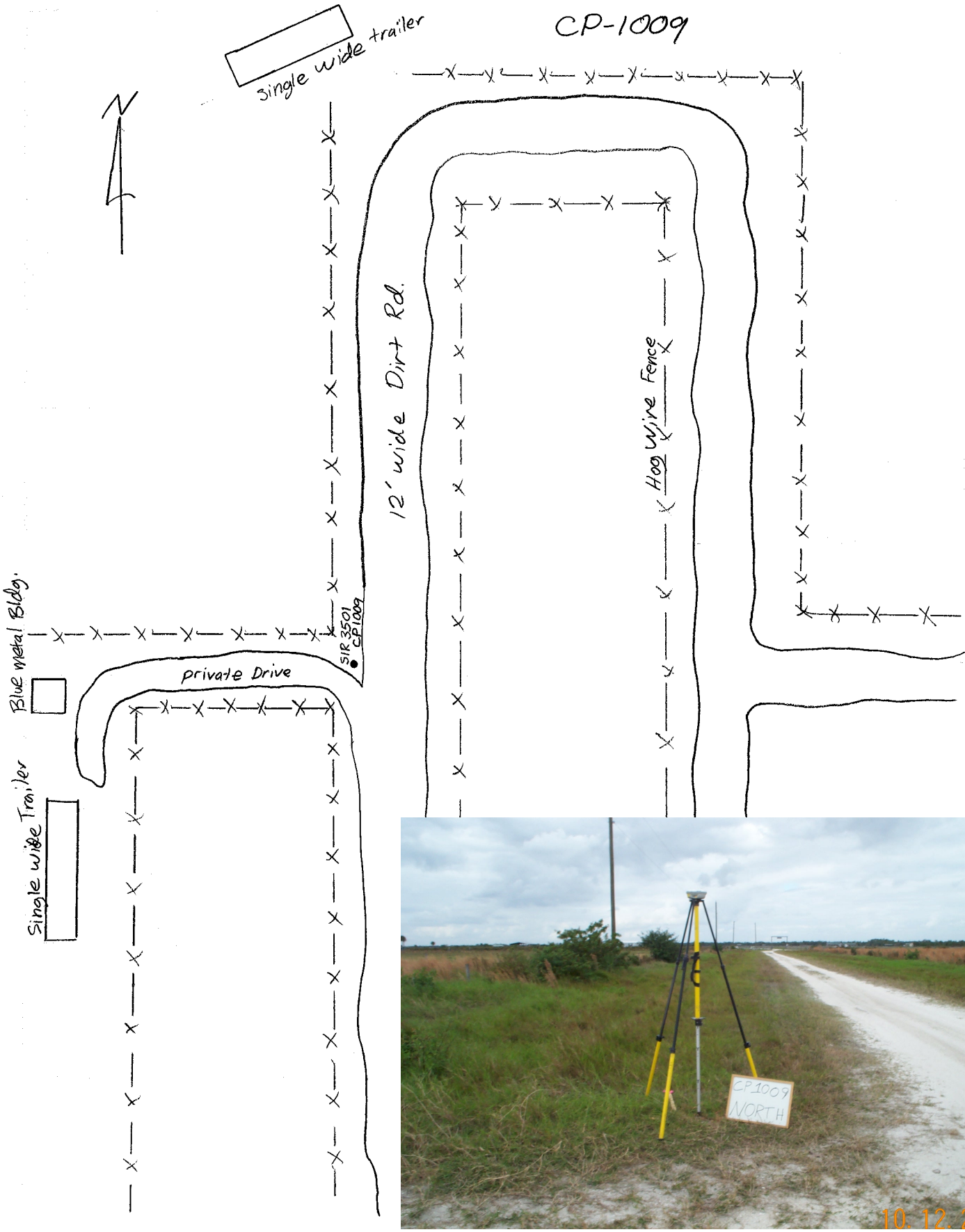
BY _____ JOB NO. _____

CP-1009



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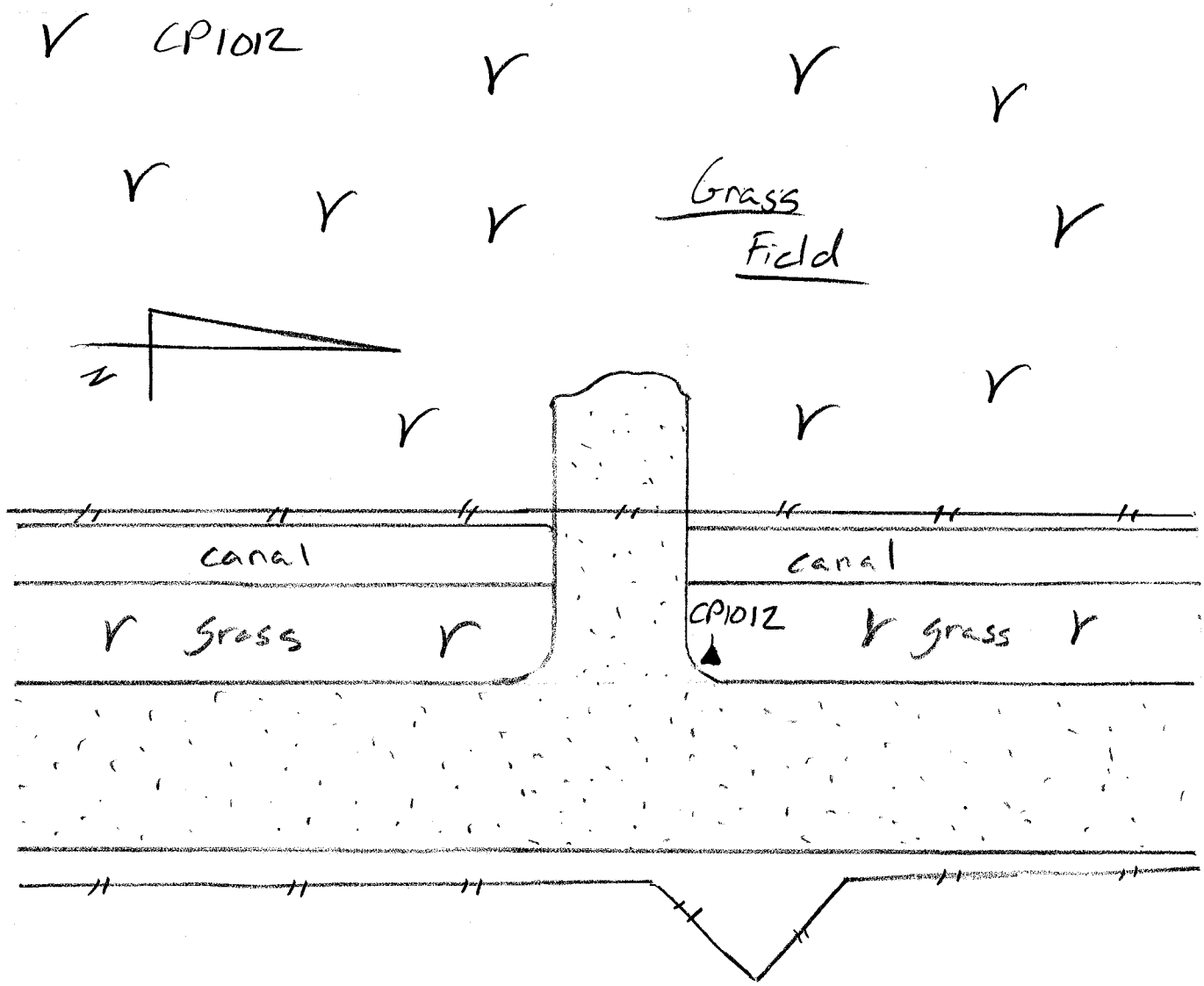



Wood's

GUSTIN, COTHERN & TUCKER, INC.
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NICEVILLE, FLORIDA 32578
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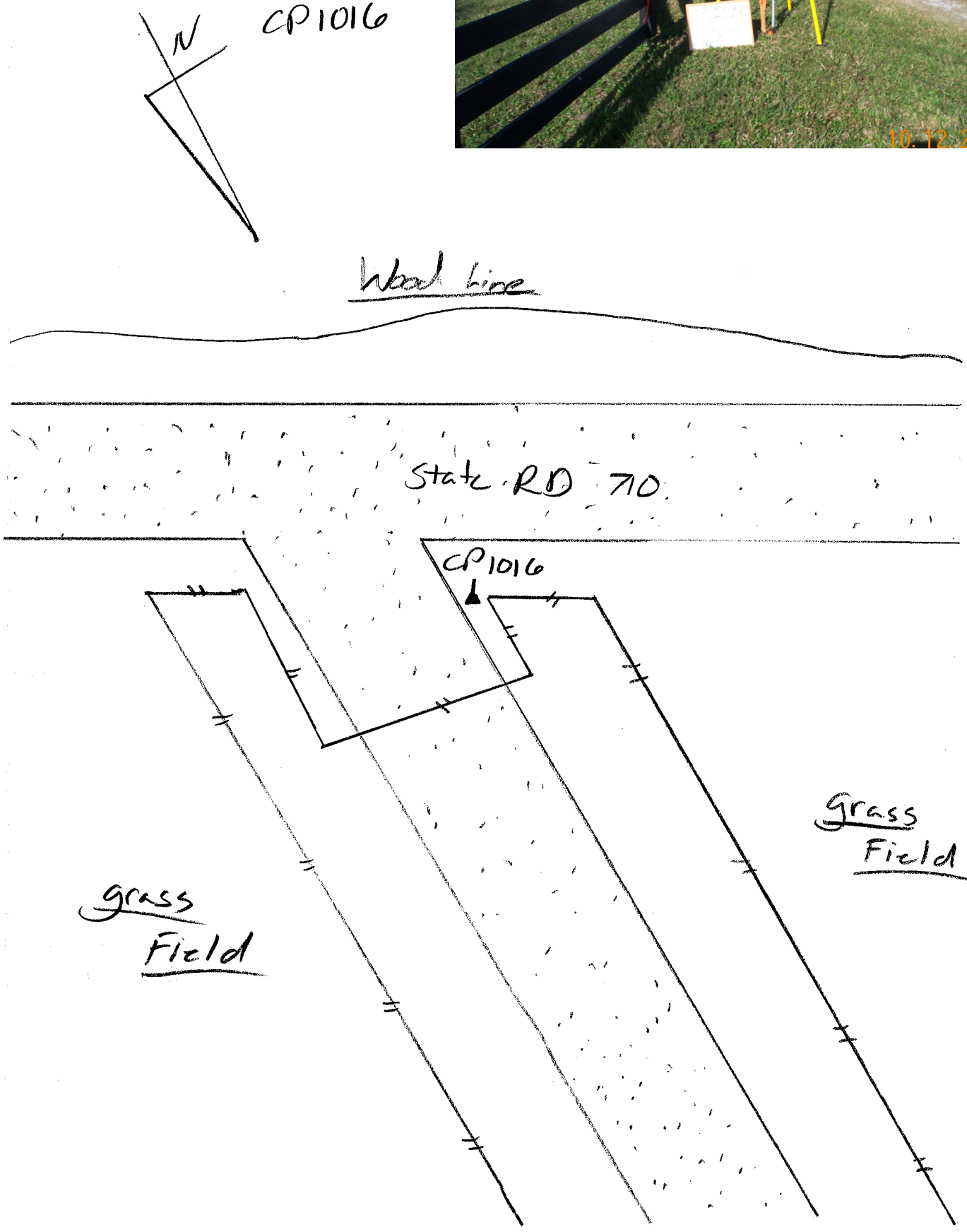
SUBJECT _____

BY _____





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CP1017

N

Planted vegatables

canal

CP1017

canal

Planted vegatables

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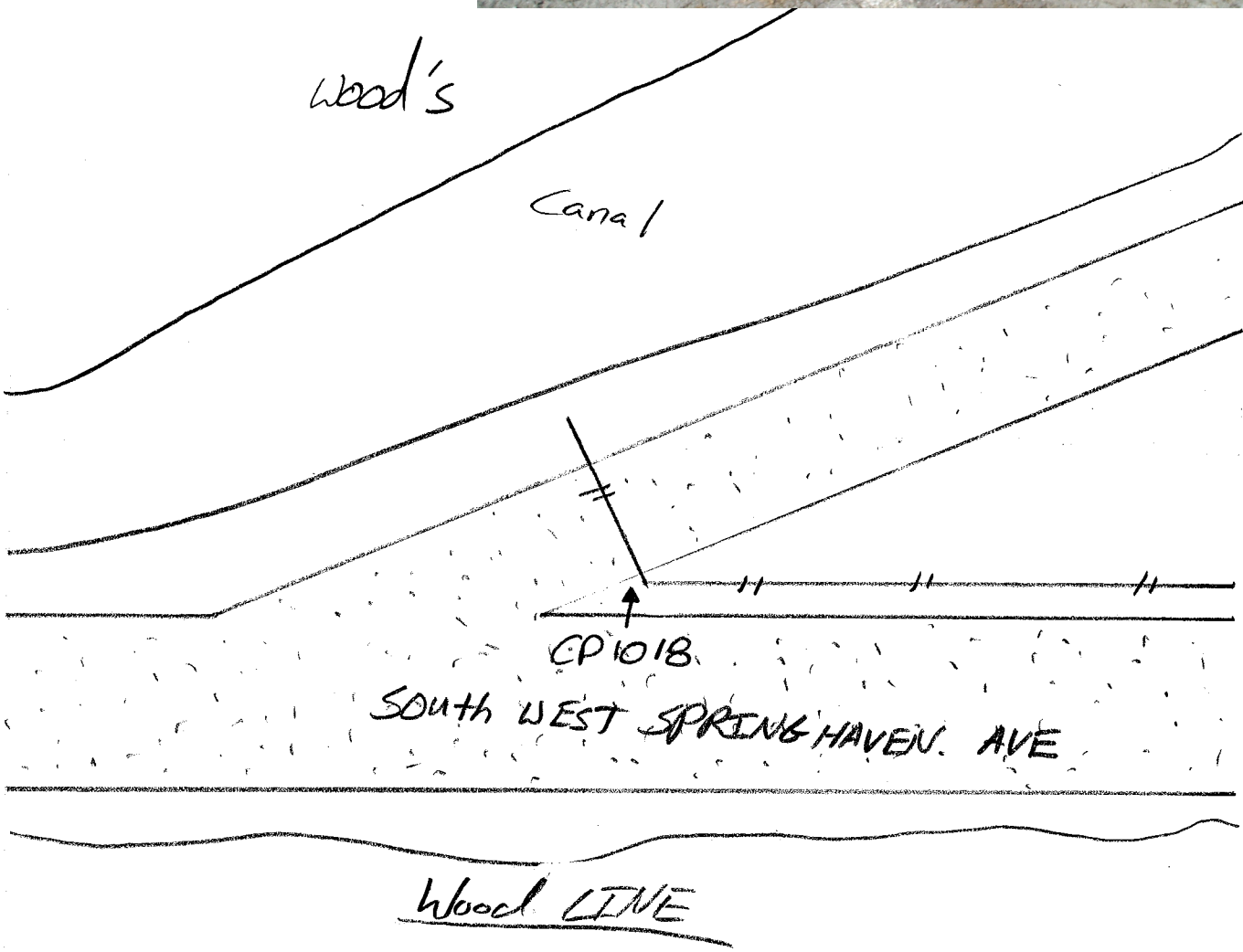
CP 1018





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PR
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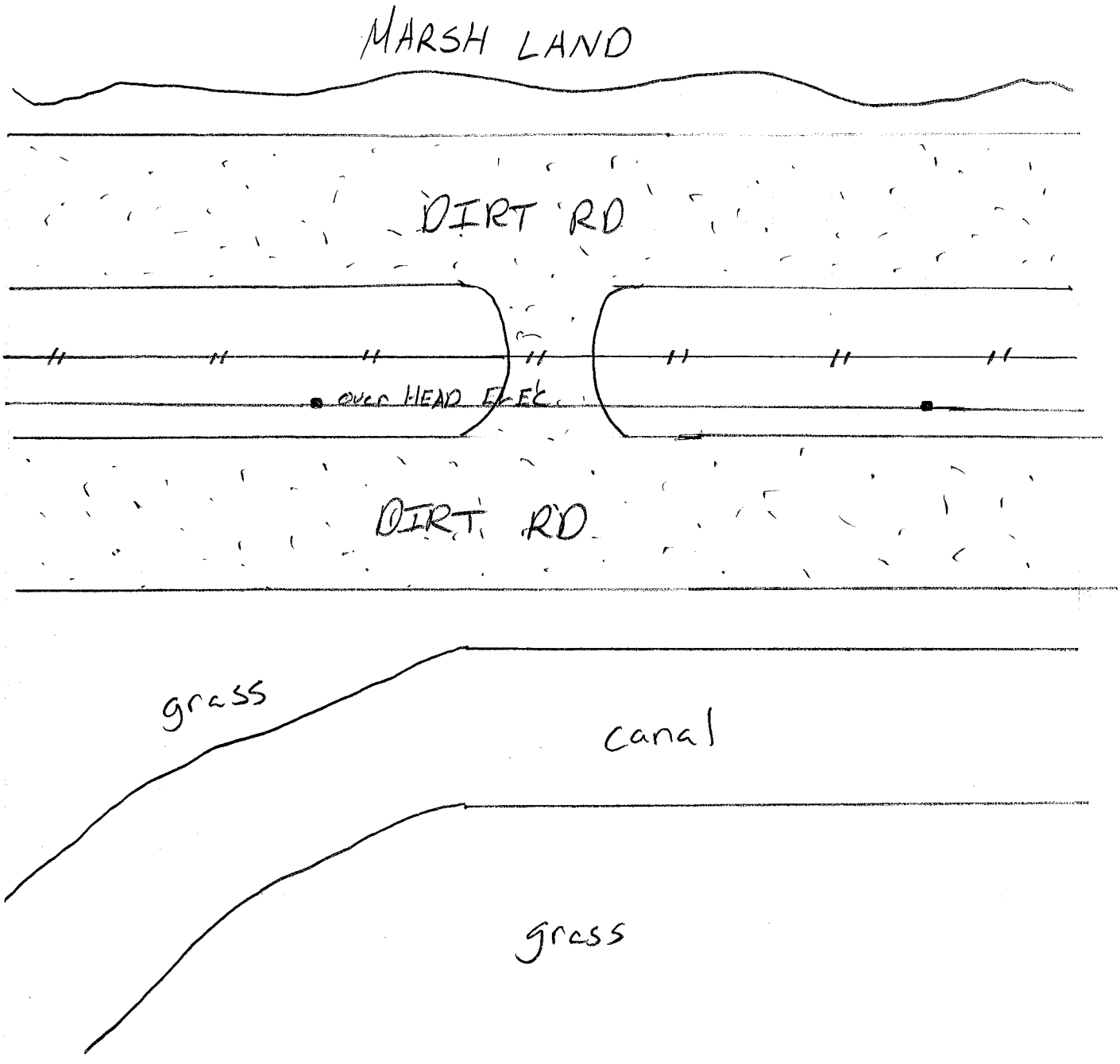
BY

CP1021







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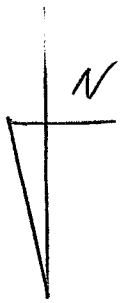
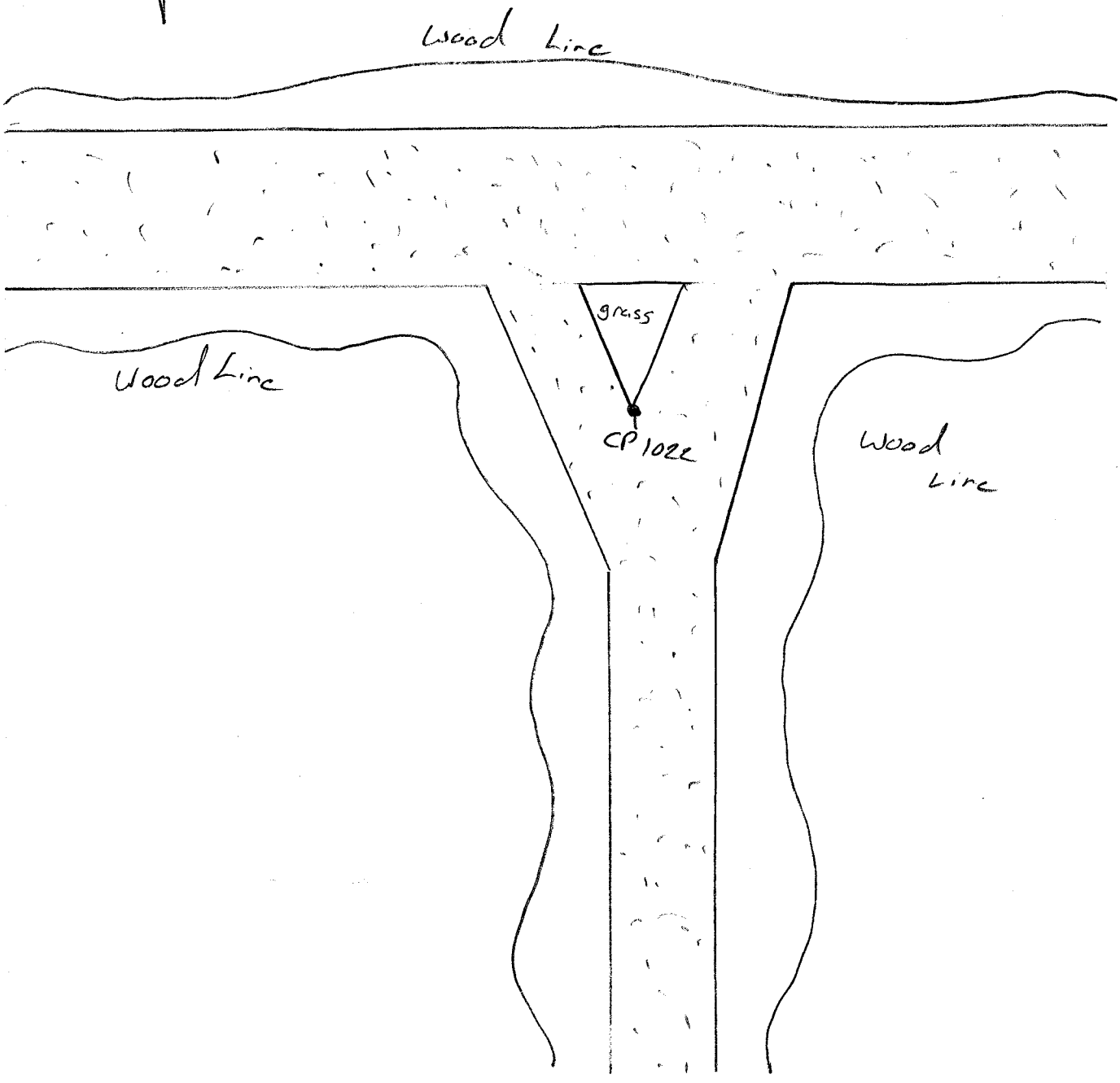
CP 1022







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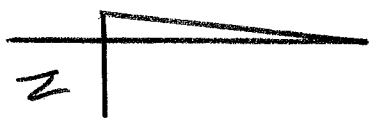
PROJE

SUBJE

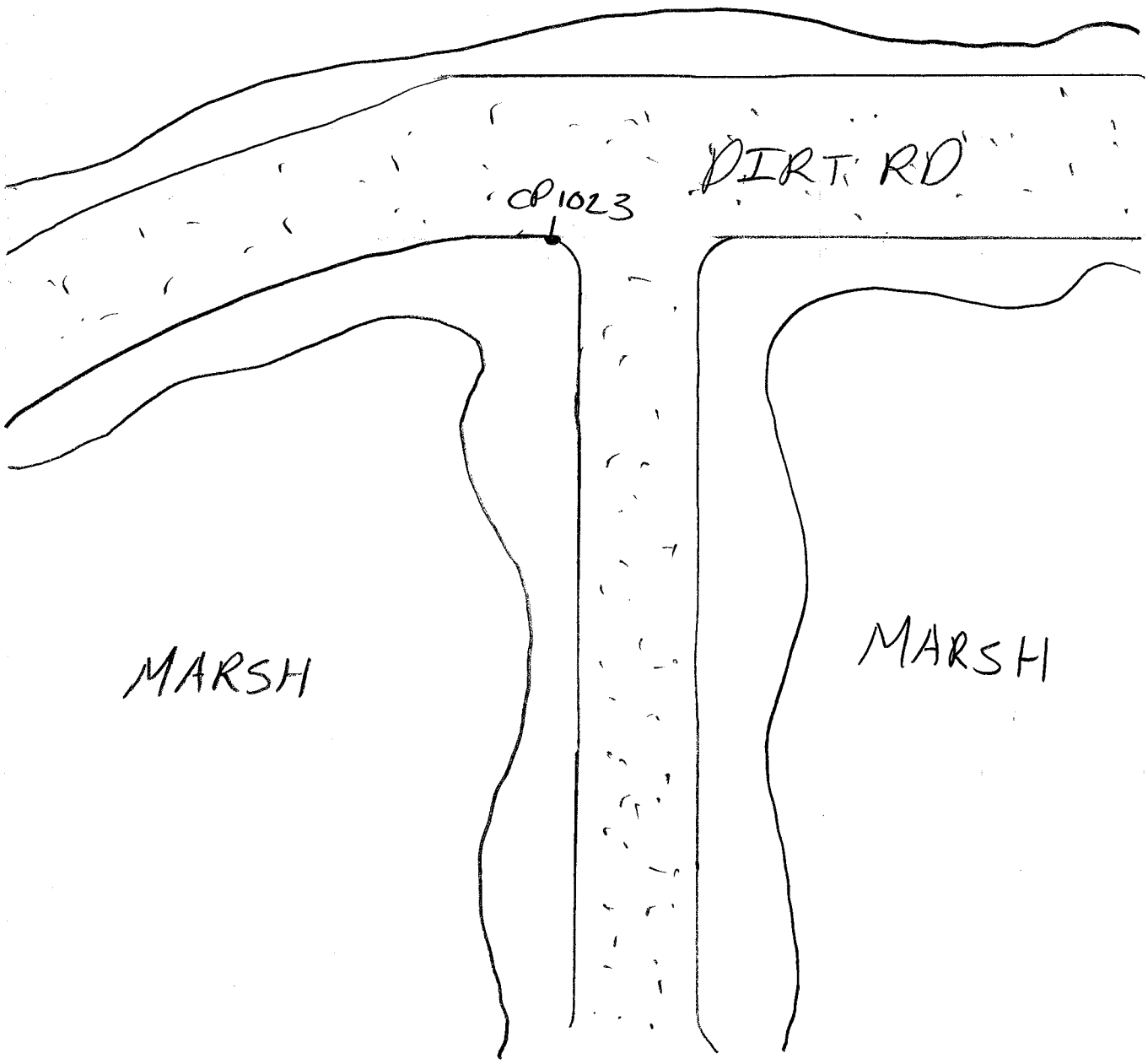
BY ___



CP 1023



MARSH



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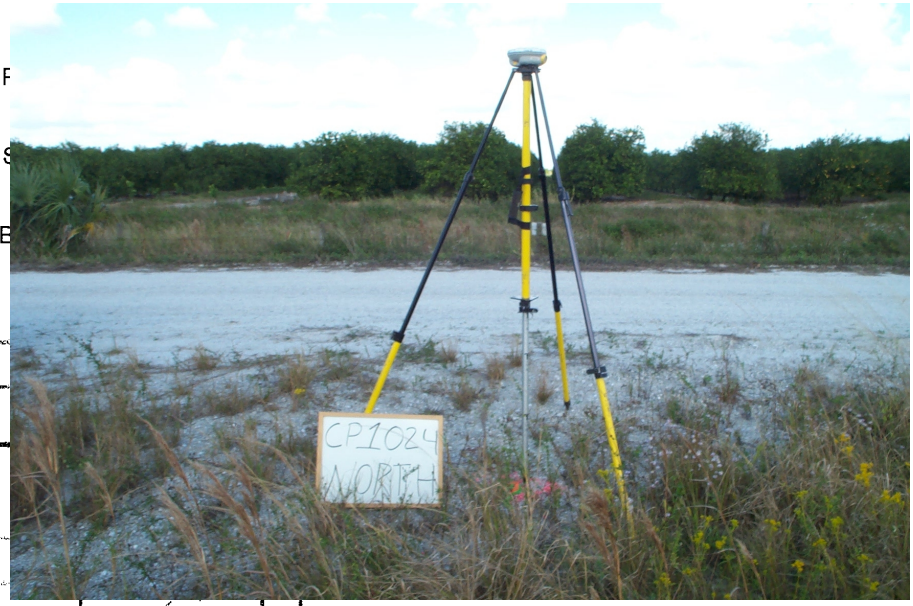
CP1024



N

MARSH LAND

MARSH LAND

Power Lines

CP1024

grass

canal

orange grove

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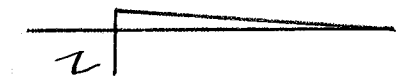
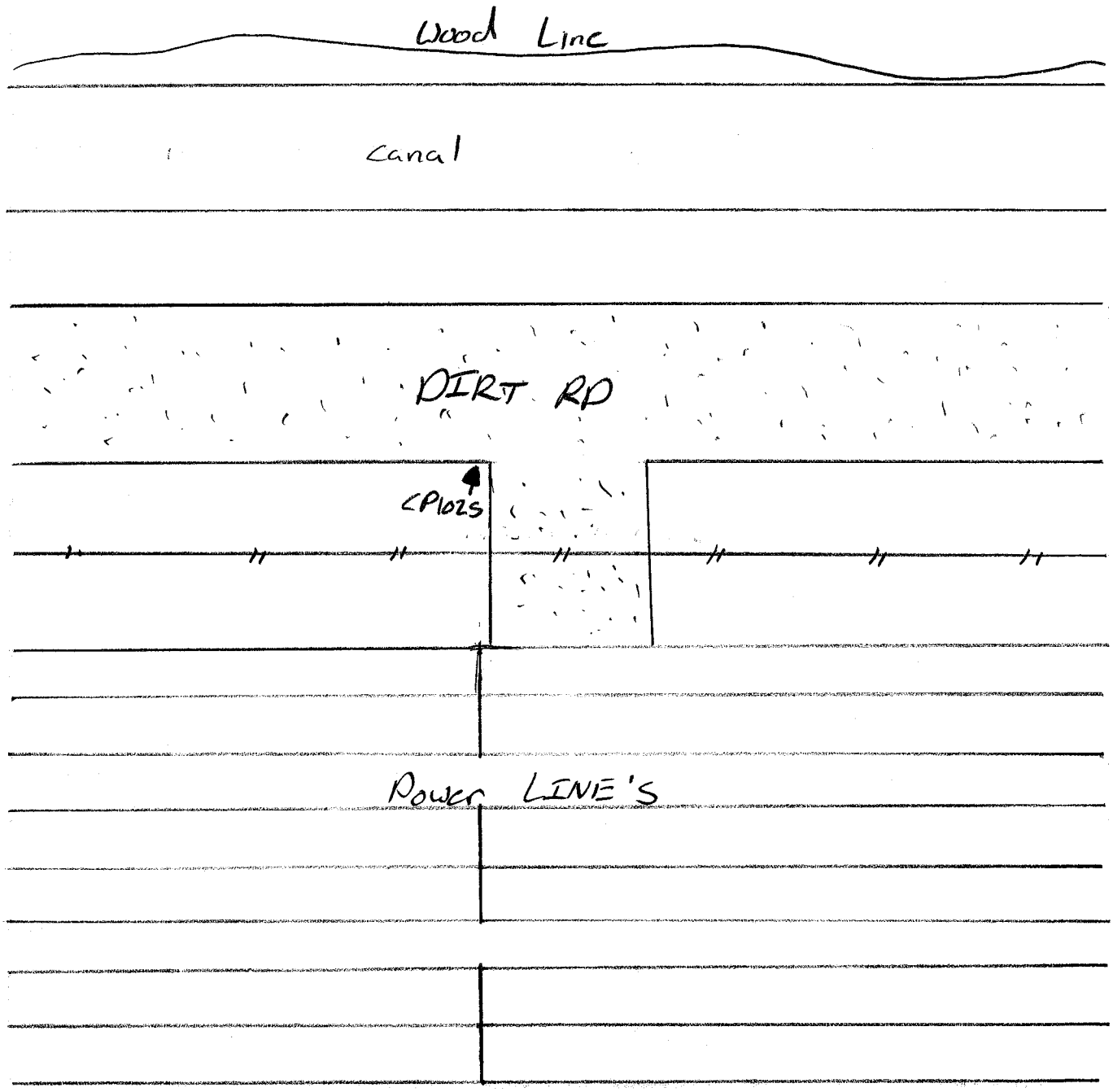
CP 102S







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PR

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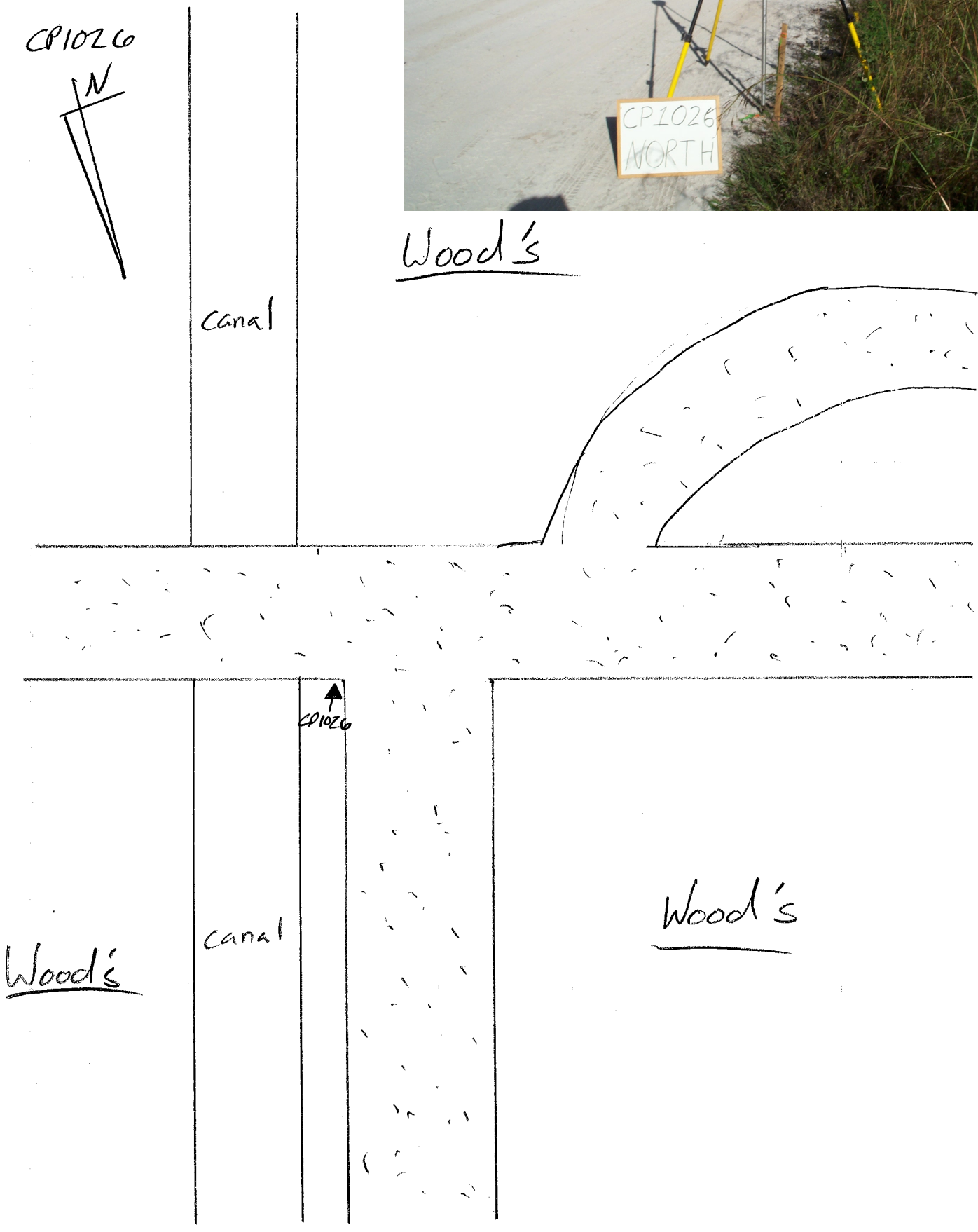

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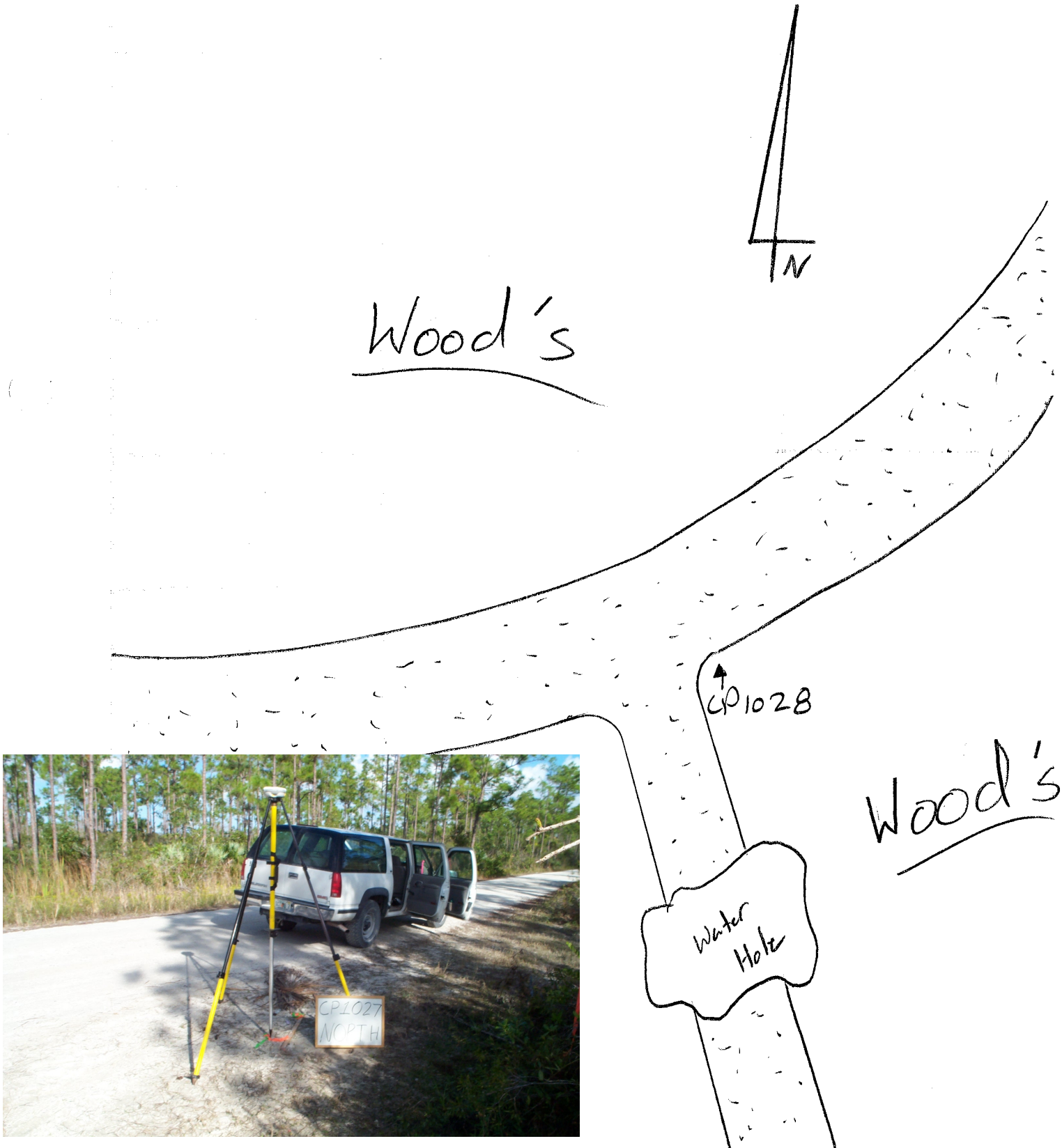
CP 1027



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PROJECT

SUBJECT

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CP 1028

N

MARSH LAND

canal

CP1028

MARSH LAND

MARSH LAND

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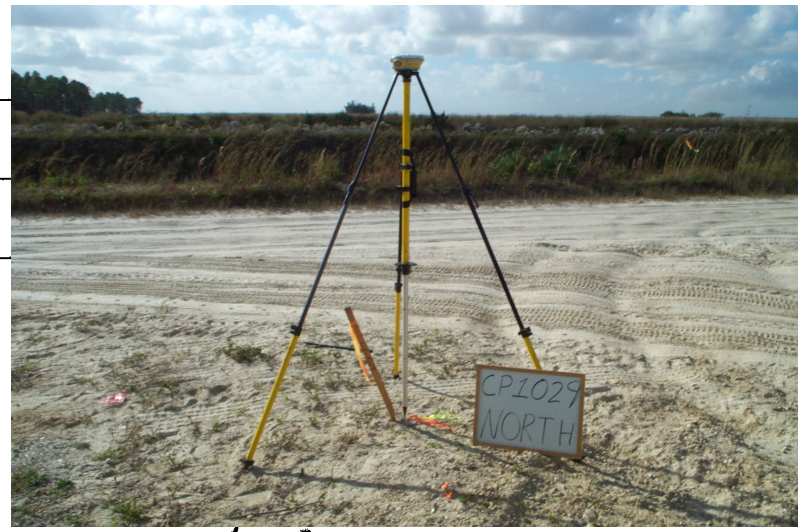

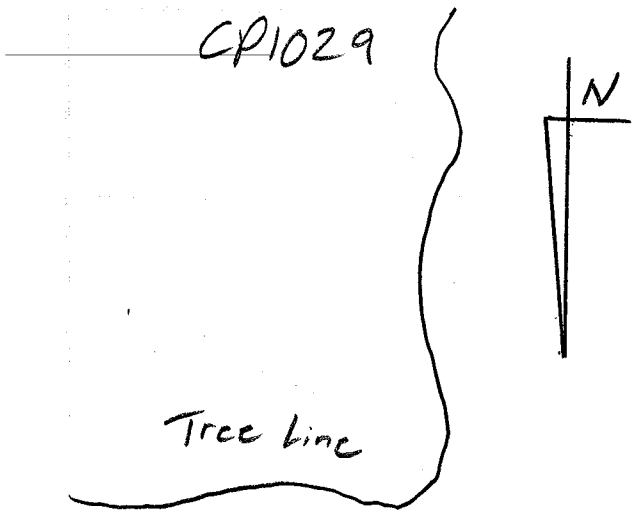

MARSH LAND

canal

r r Grass r r r

CP1029

MARSH LAND

MARSH LAND

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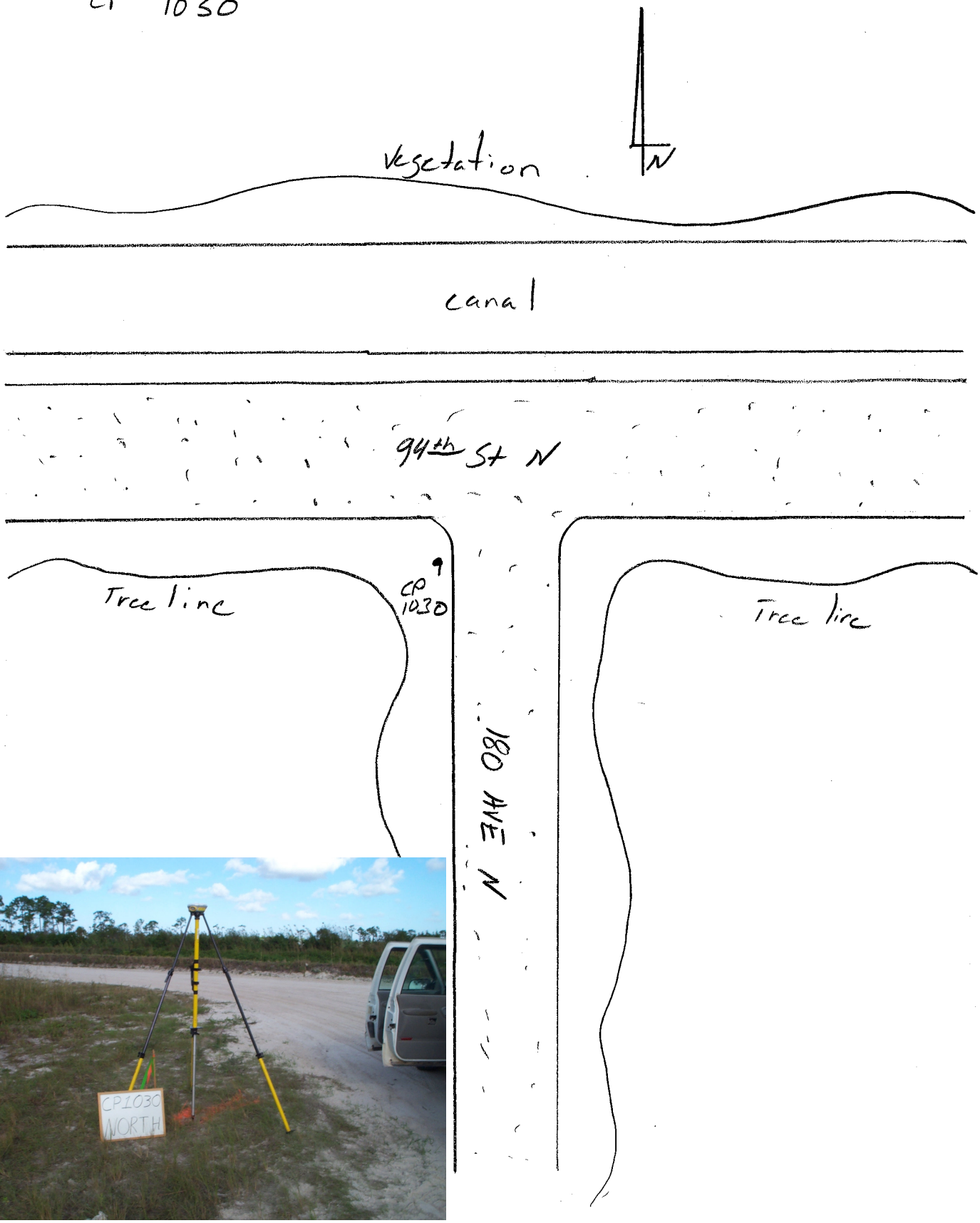
CP 1030



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PROJ

SUBJ

BY



CP 1031

N

Vegetation Line

Wood line

Seminole Pratt Whitney RD

CP 1031

wood line

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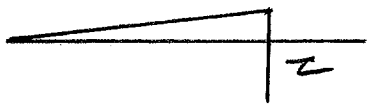
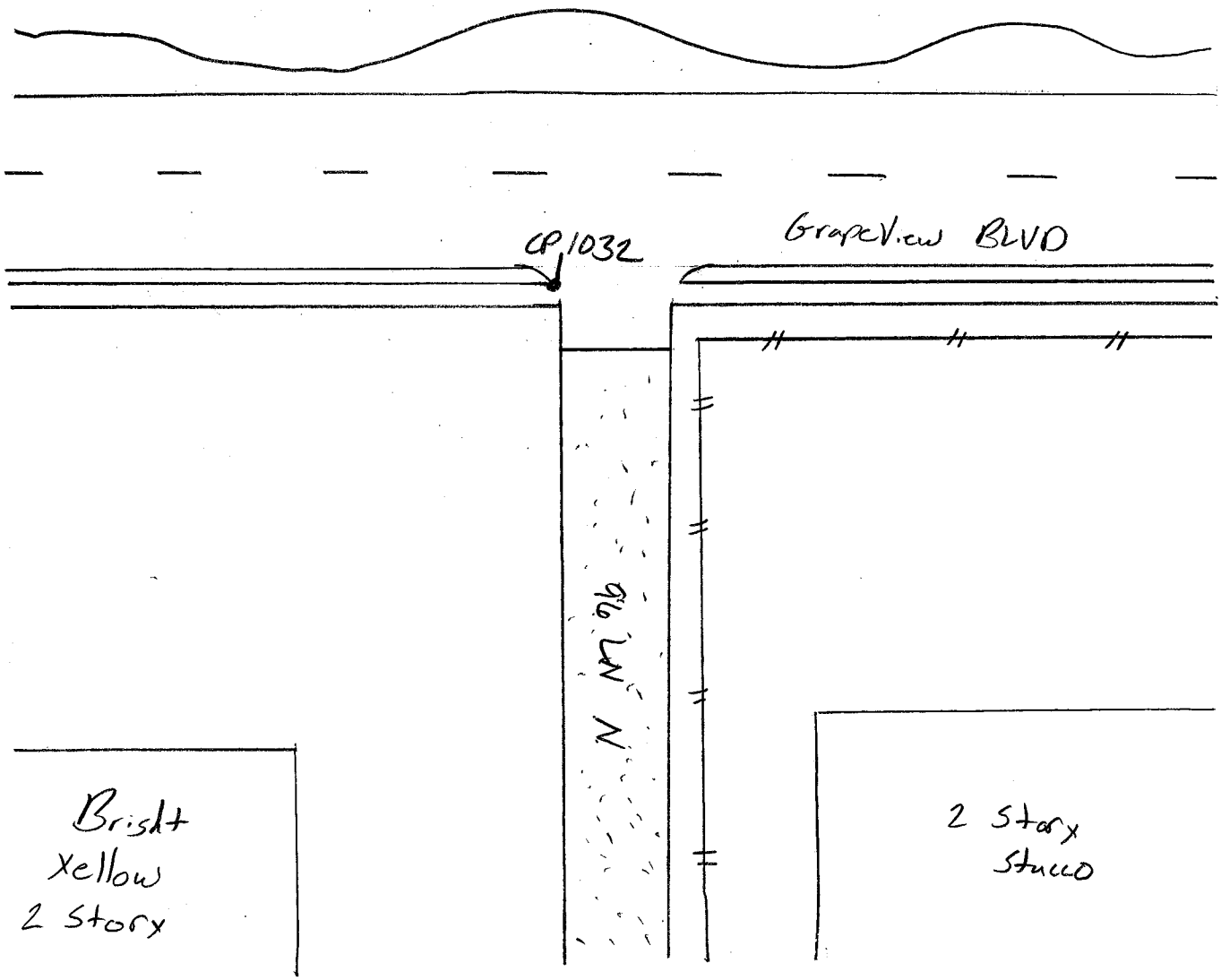
CP 1032





Marsh



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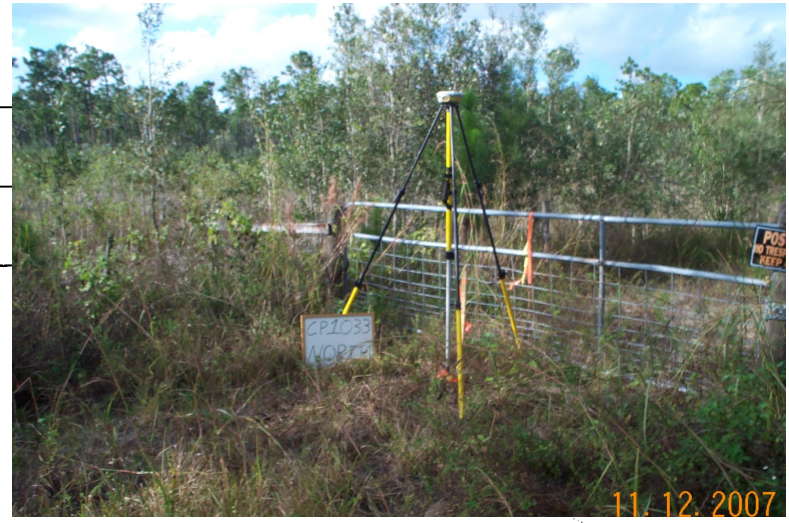
PROJECT

SUBJECT

BY

CP1033



woods

grass

CP 1033

marsh

spoil

spoil

N

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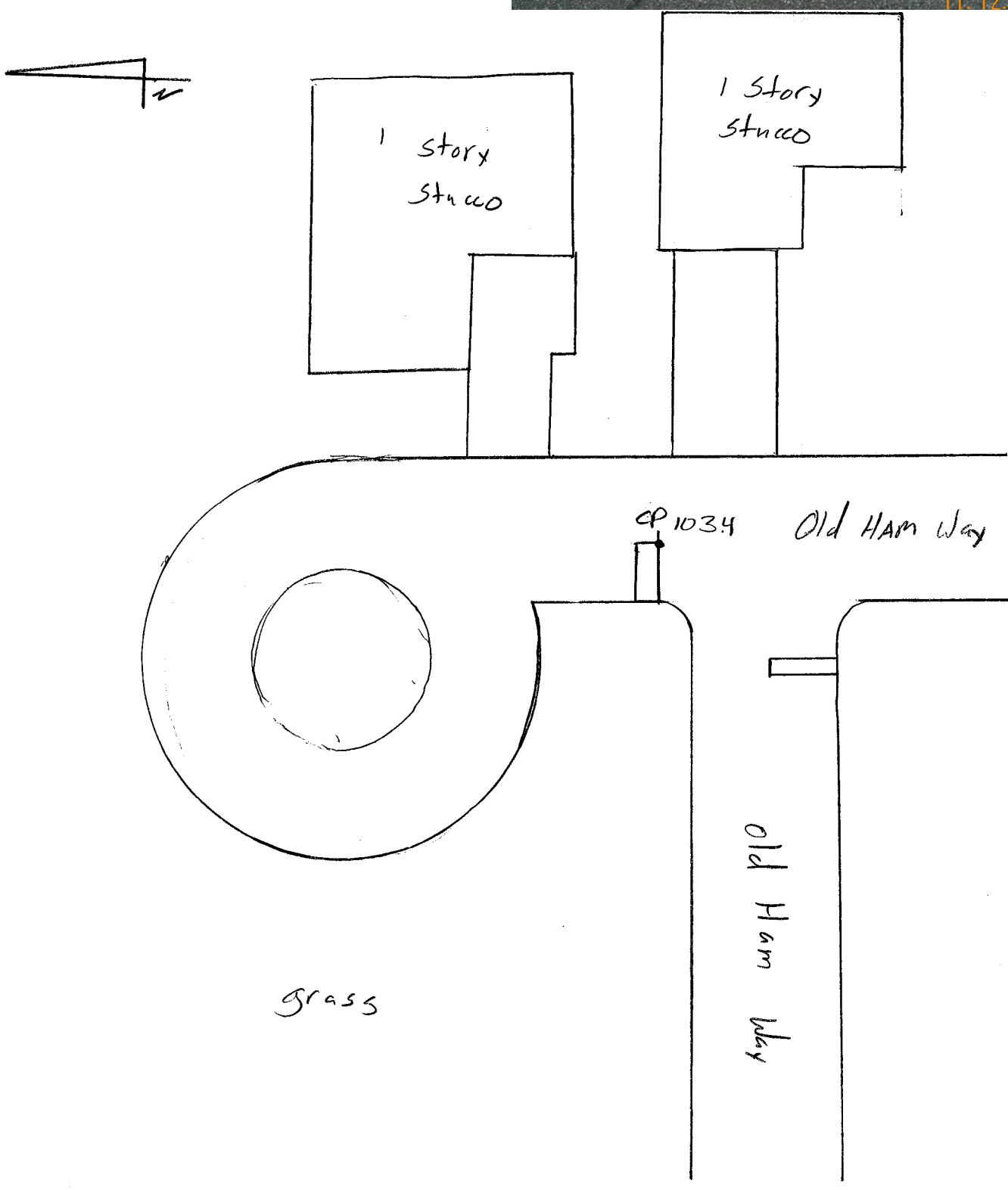
SUBJECT _____

BY _____

CP 1034





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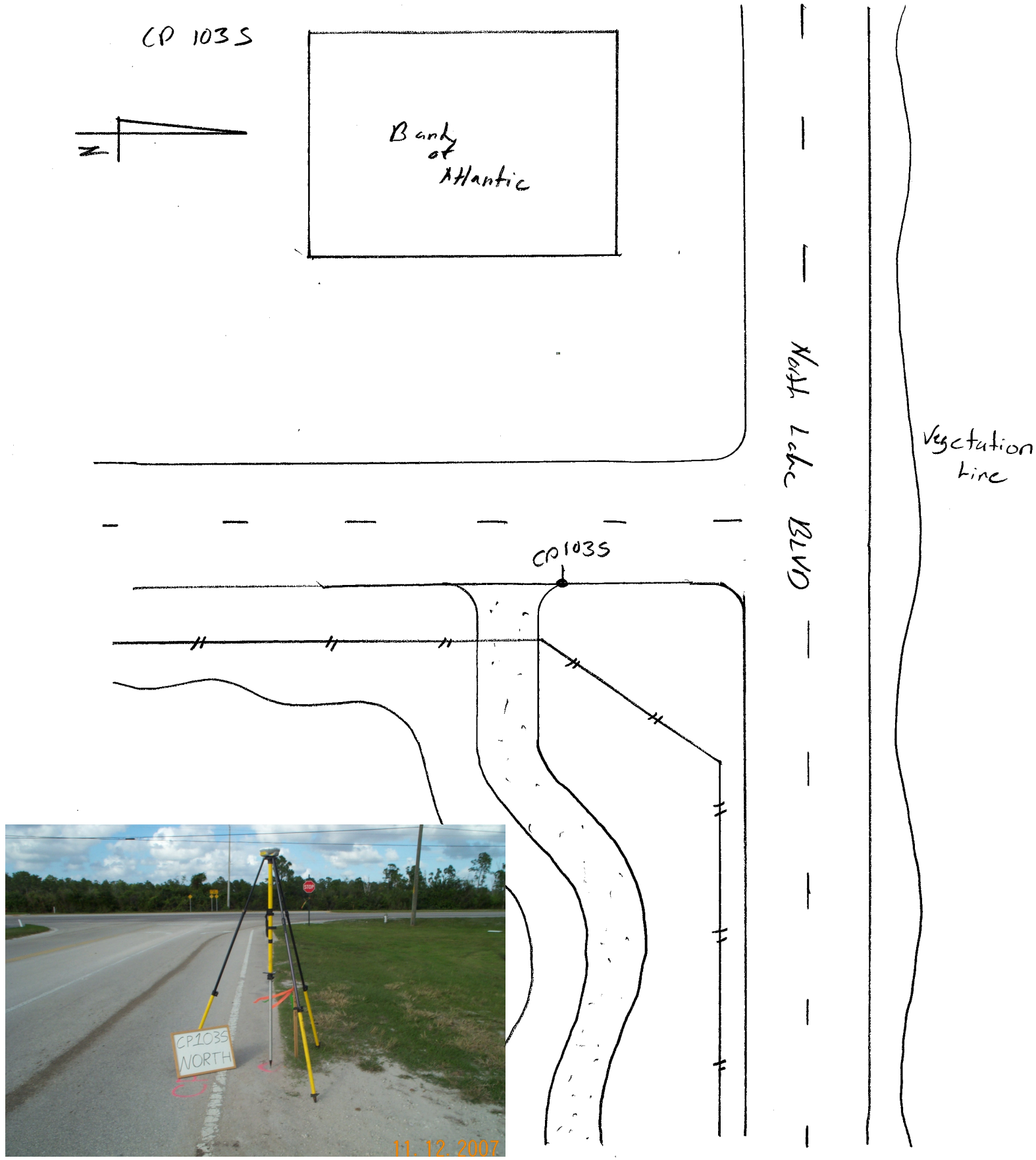

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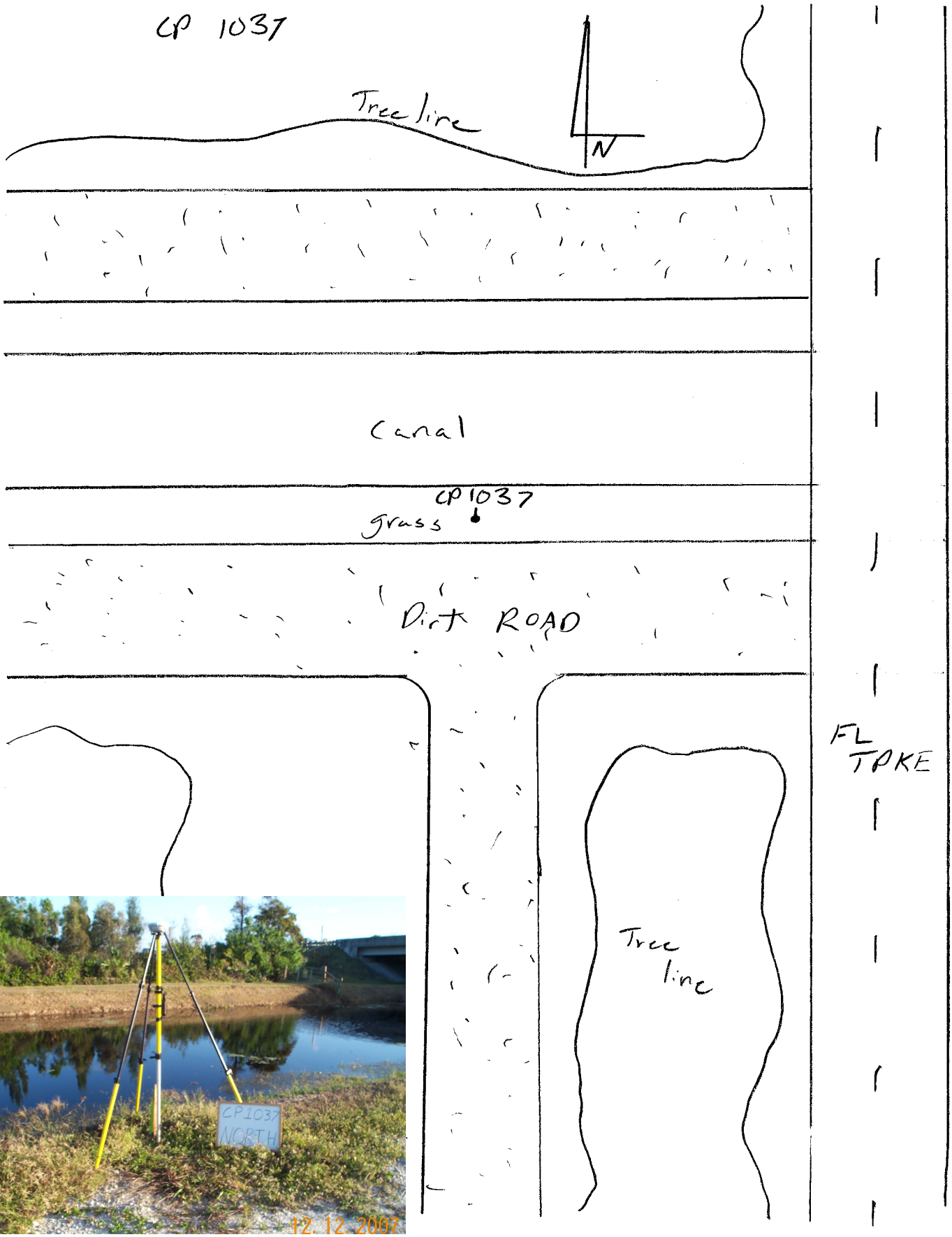

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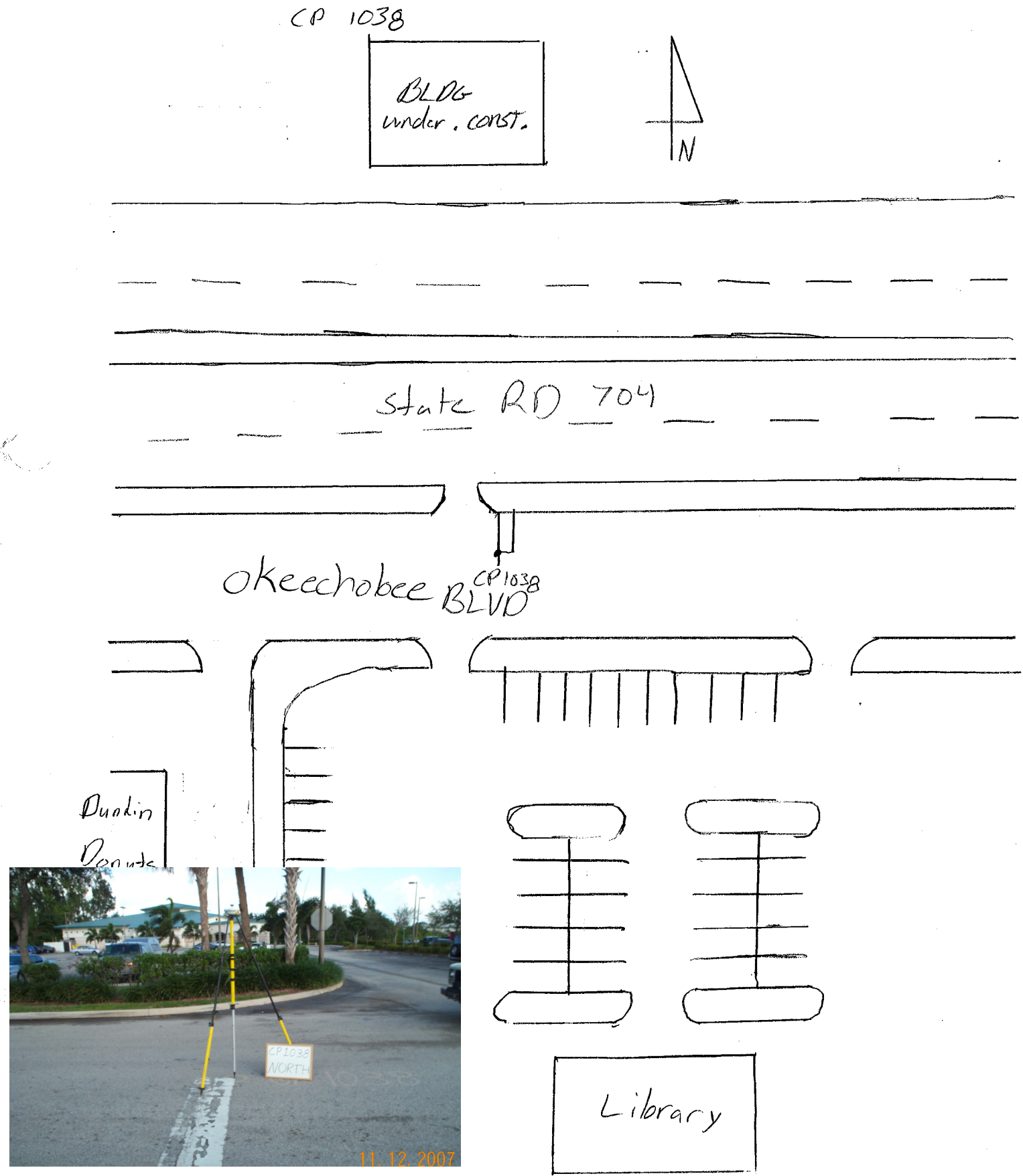
BY _____ JOB NO. _____



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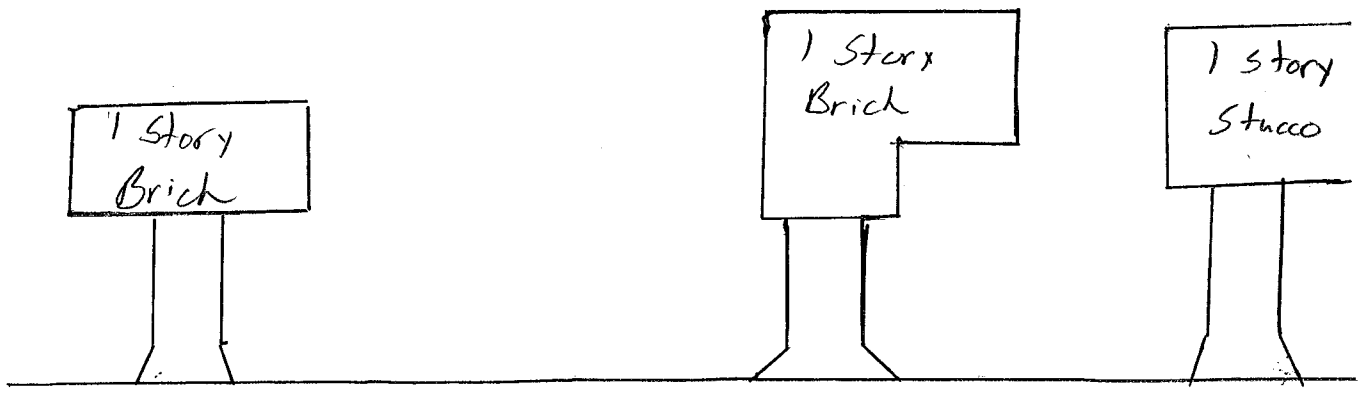
PROJEC

SUBJEC

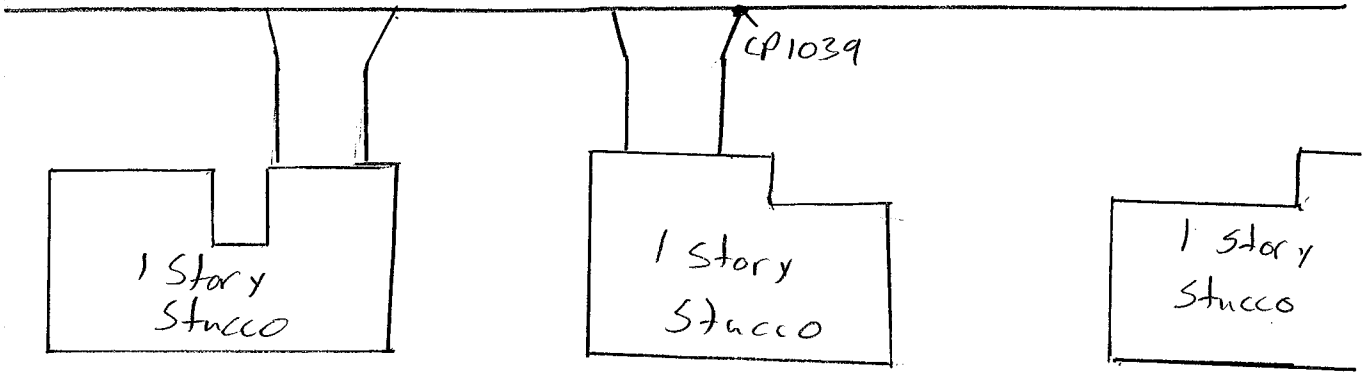
BY

CP 1039





Woodcrest RD W



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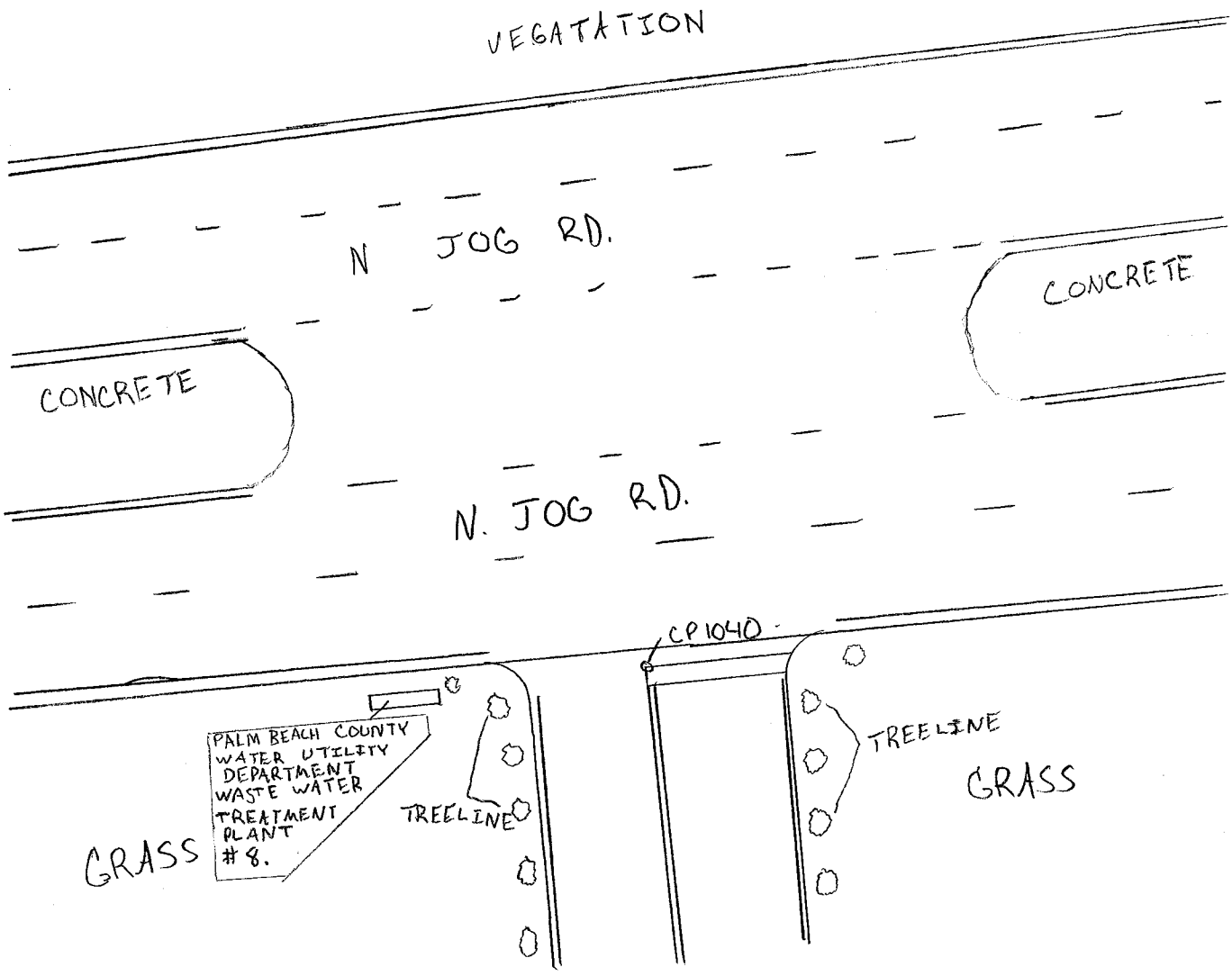
CP 1040





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(850) 678-5141

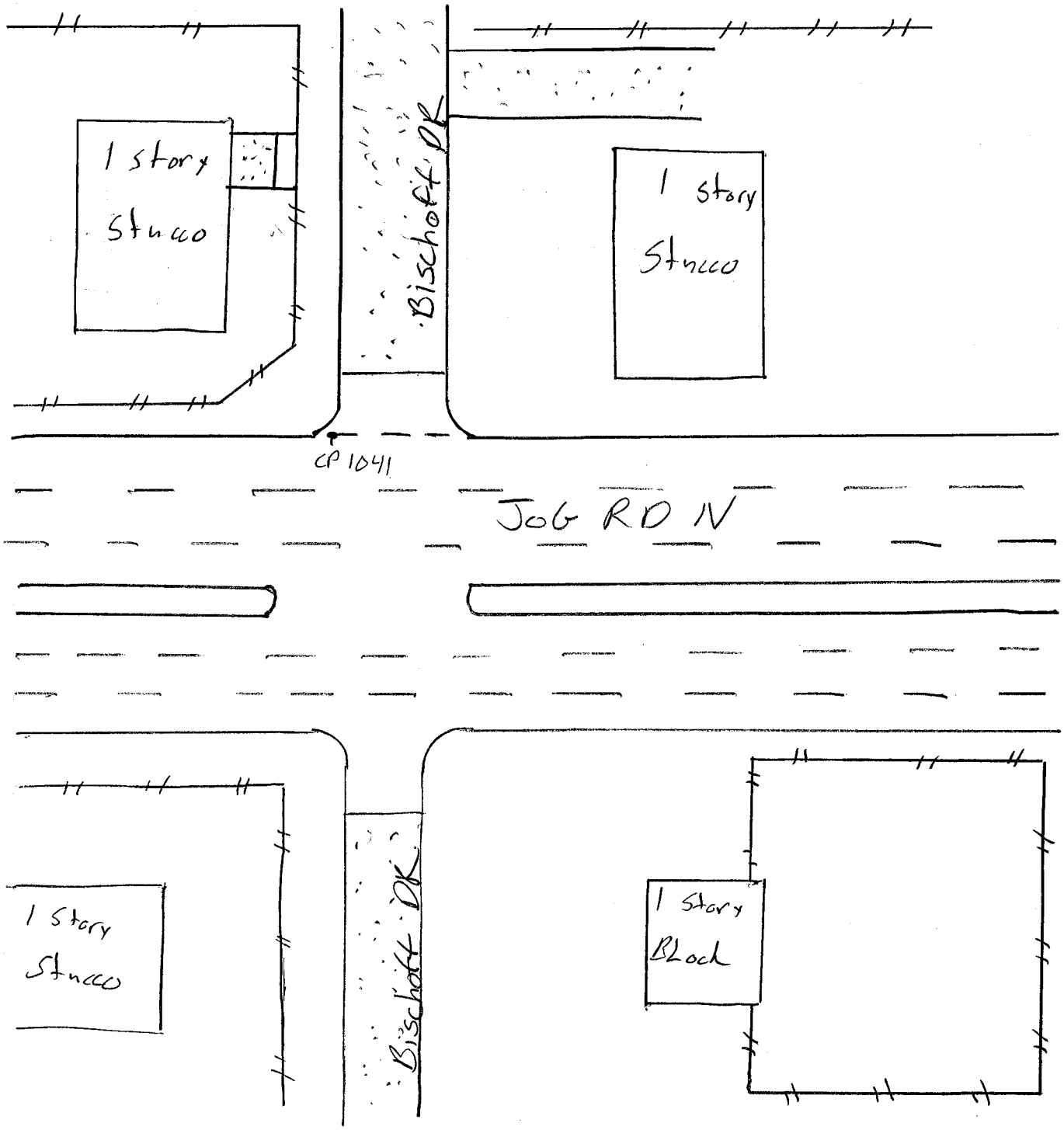
PROJECT _____

SUBJECT _____

BY _____

CP 1041





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SUBJE

BY



CP 1042

N

(2 STORY METAL)
J. W. CHEATHAM

(CONCRETE)
PARKING/LOAD

(CONCRETE)
PARKING/
WORK AREA

GRASS

GRASS

CP 1042

DUMPSTER YARD

SUNBURST
SANITATION

1 STORY METAL
SHOP BUILDING

1 STORY METAL
SHOP BUILDING

WEST PORT PL

ADVANCED
PAINTING
CONTRACTORS
(2 STORY STUCCO)

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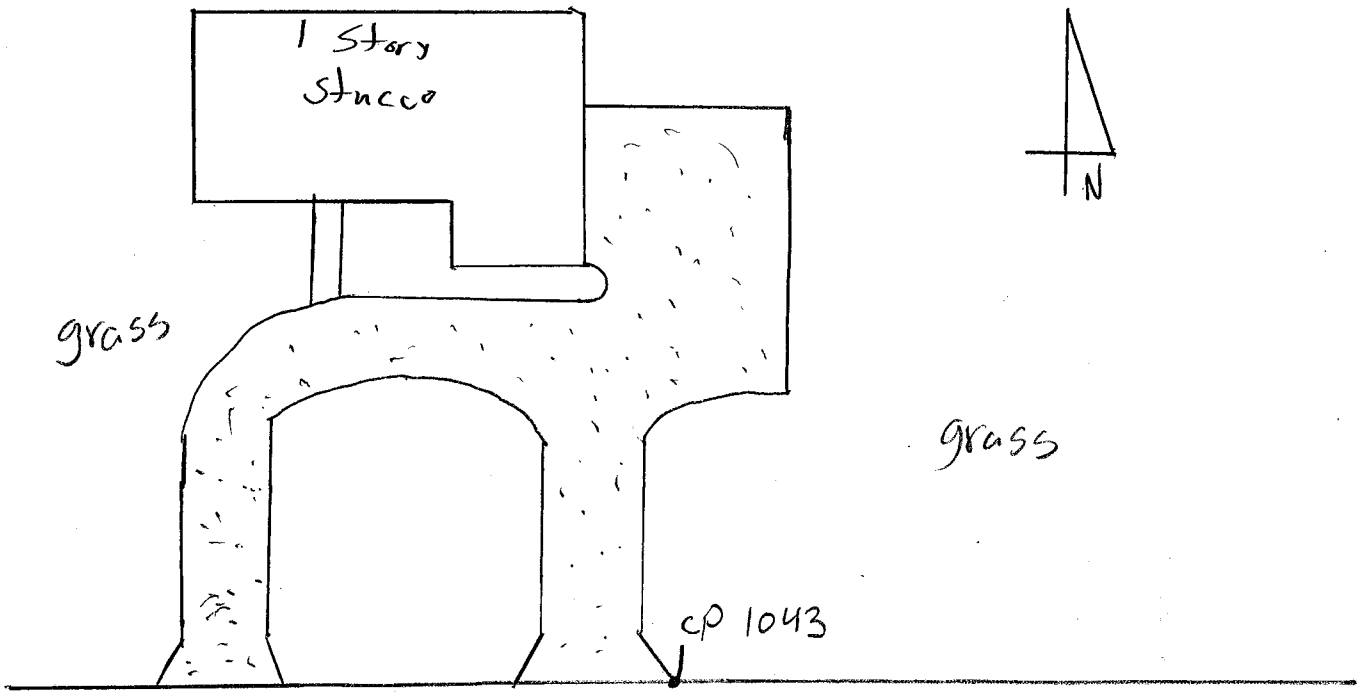
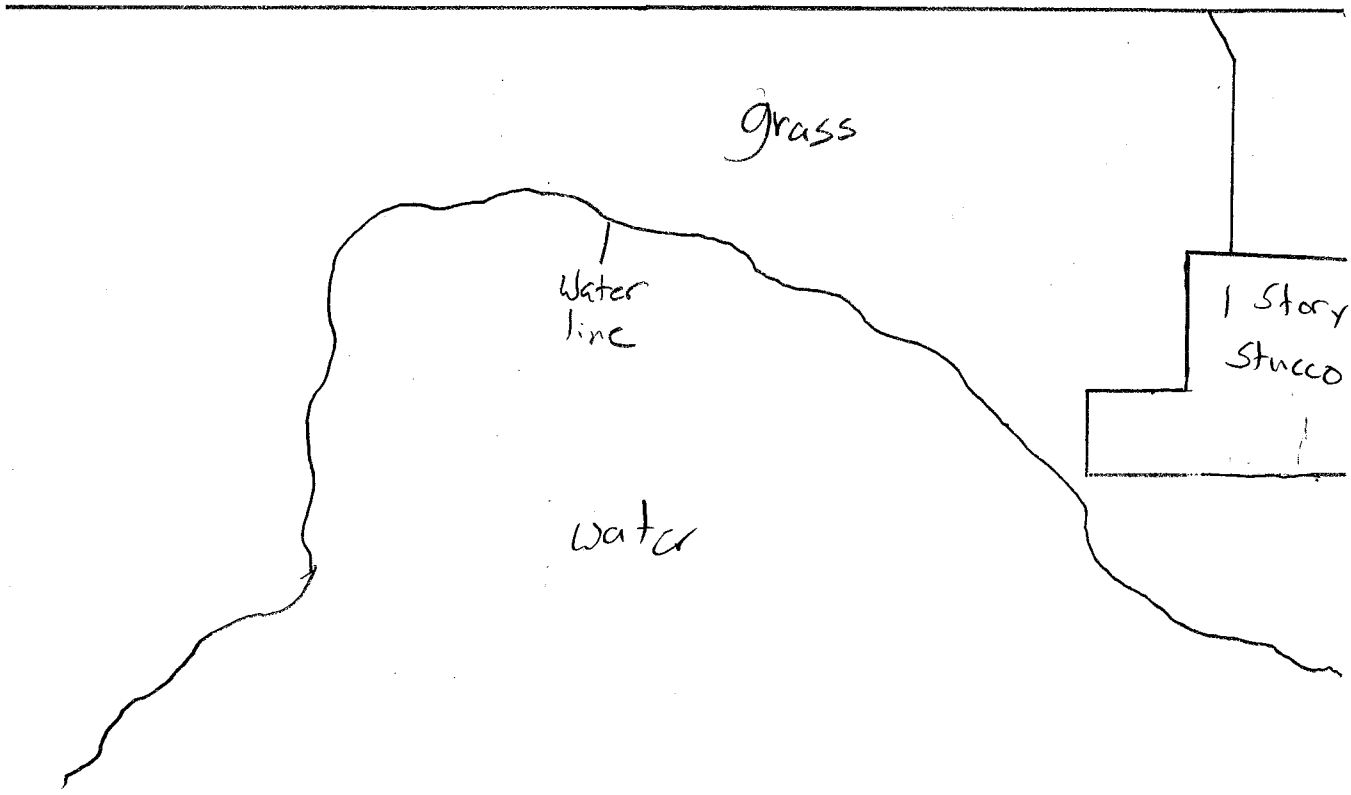
BY _____



CP 1043



Pioneer Lakes CR



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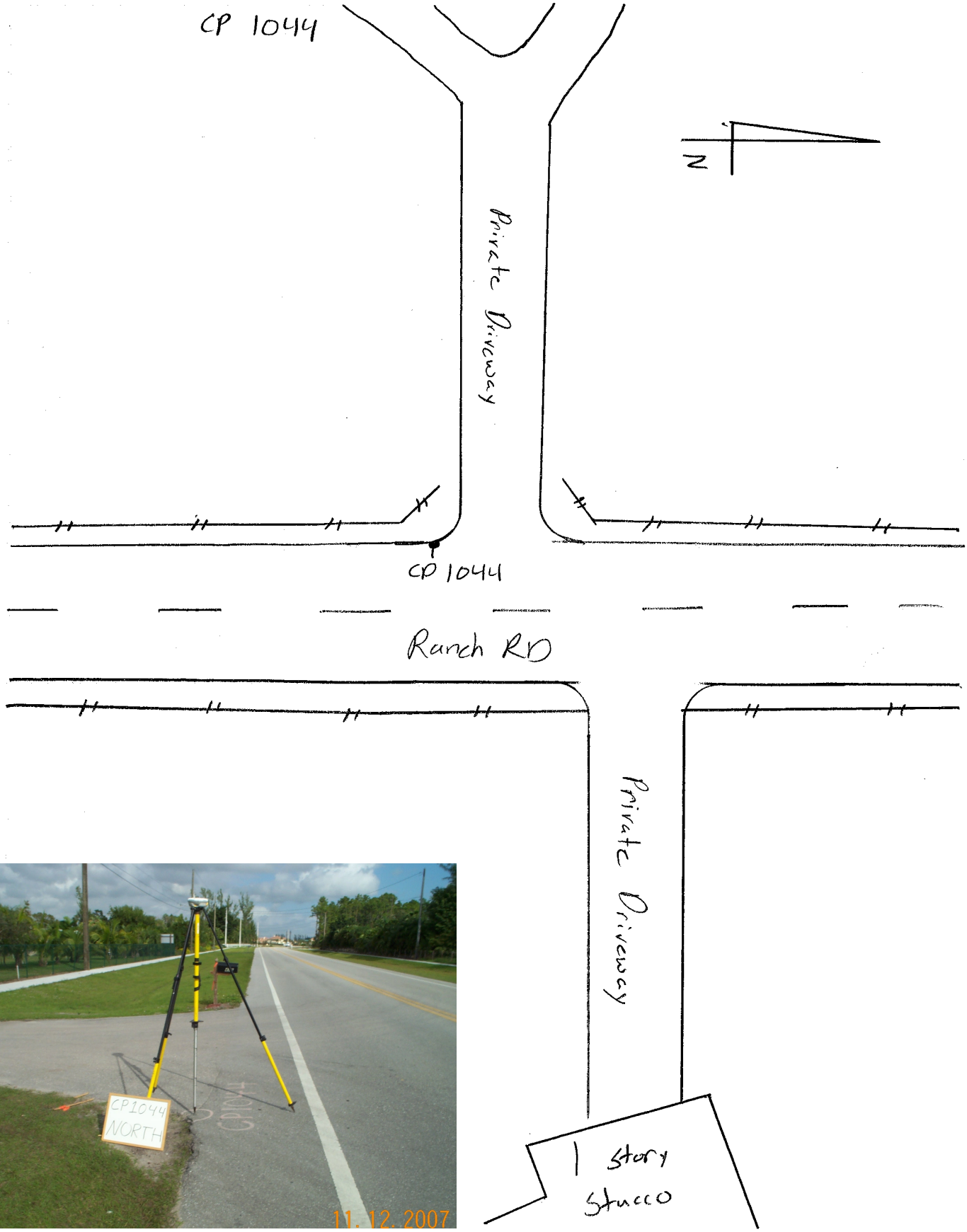
SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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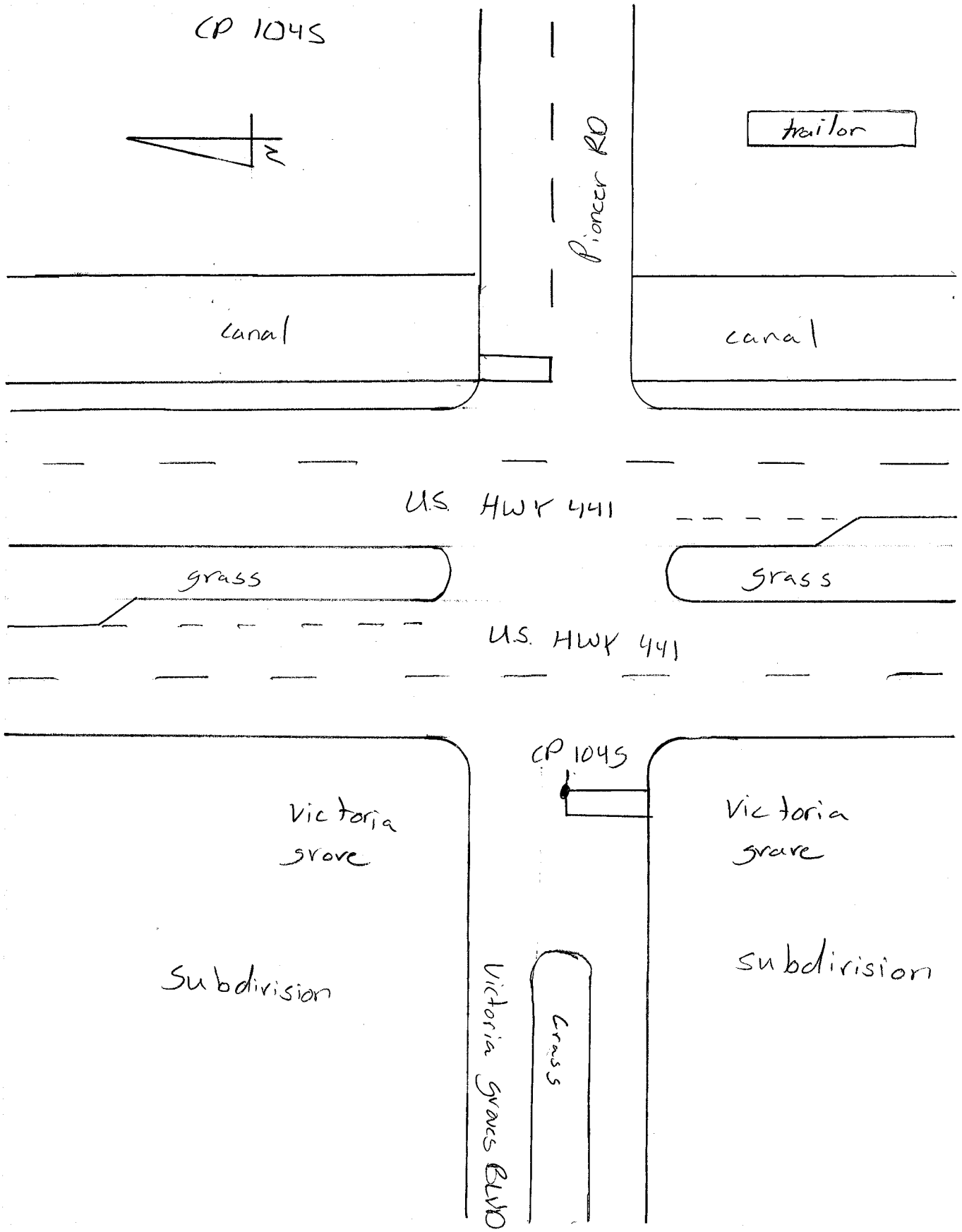
SUBJECT _____ DATE _____

BY 1173-0044-7 JOB NO. _____



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PROJ

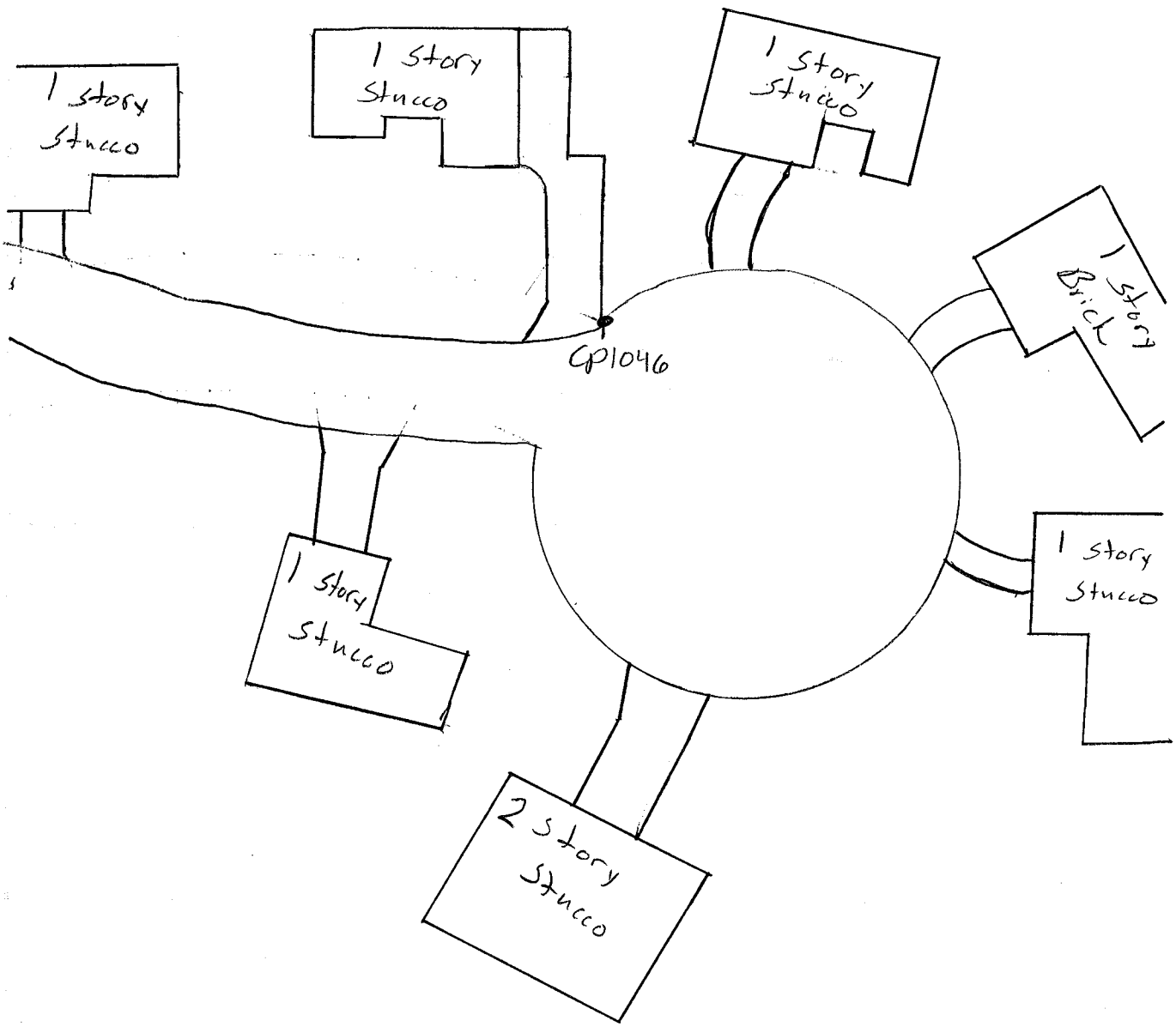
SUBJ

BY

CP 1046



N



GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

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PROJECT _____

SUBJECT _____

BY _____



CP 1047

N

MONARCH LN

1 story stucco

2 story stucco

columbine AVE

1 story stucco

1 story stucco

1 story vinyl siding

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SUBJECT _____ DATE _____

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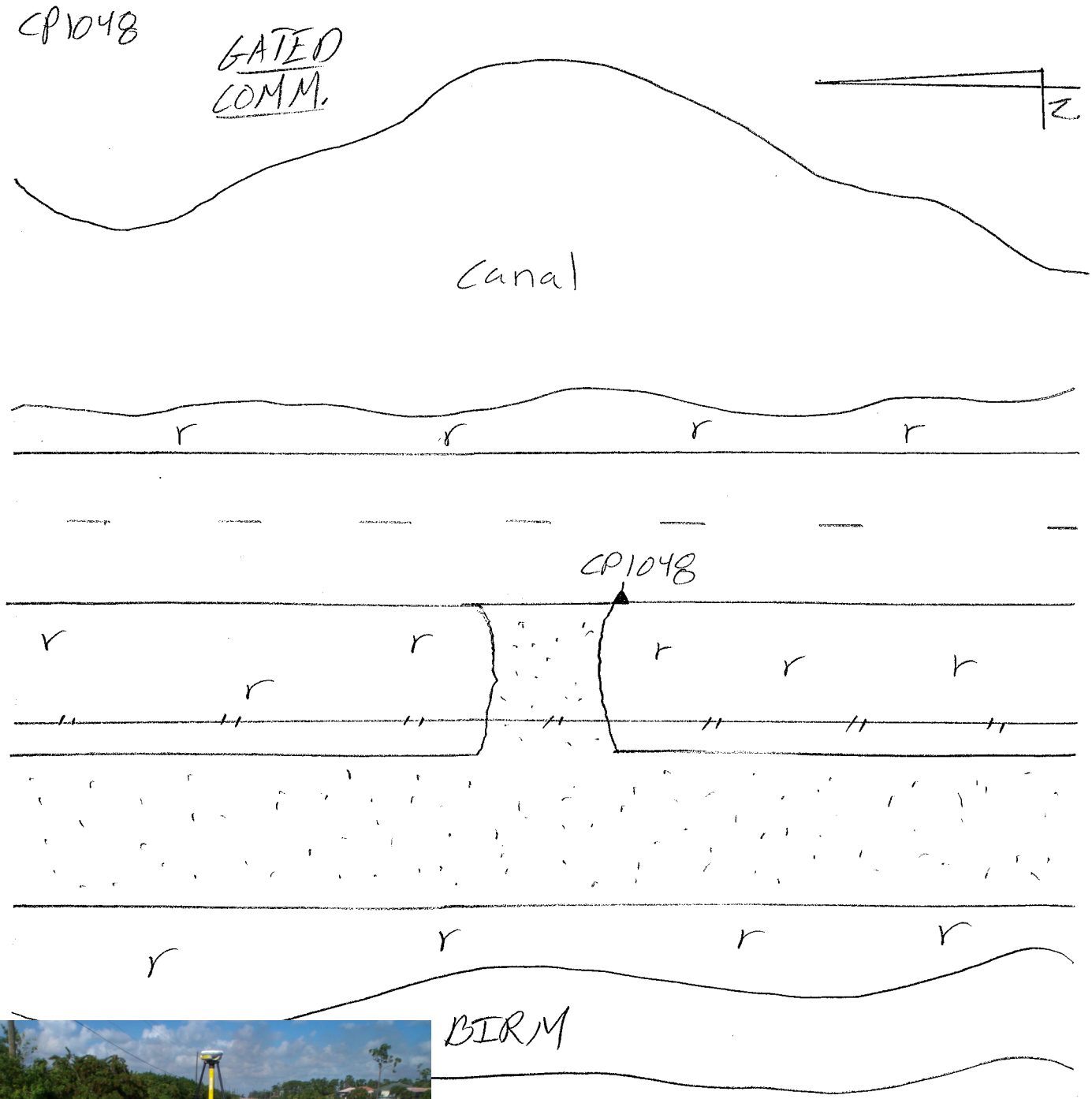



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PROJECT _____

SUBJECT _____

BY _____



CP1049

Marsh land

Canal

grass

pump station

CP1049

N

Marsh

grass

power pole

rocks

Canal

grass

grass

Marsh

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PROJECT

SUBJECT

BY



CP1050

N

MARSH LAND

MARSH LAND

CP1050

canal

MARSH LAND

Power Pole

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PROJECT ____

SUBJECT ____

BY ____



CP 1051

N

Vegatation Line

grass

Dirt RD

grass

Dirt RD

CP1051

Vegatation Line

over Head ELEC.

GUSTIN, COTHERN & TUCKER, INC.

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NICEVILLE, FLORIDA 32578

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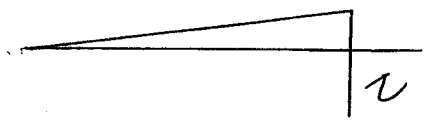
PROJECT

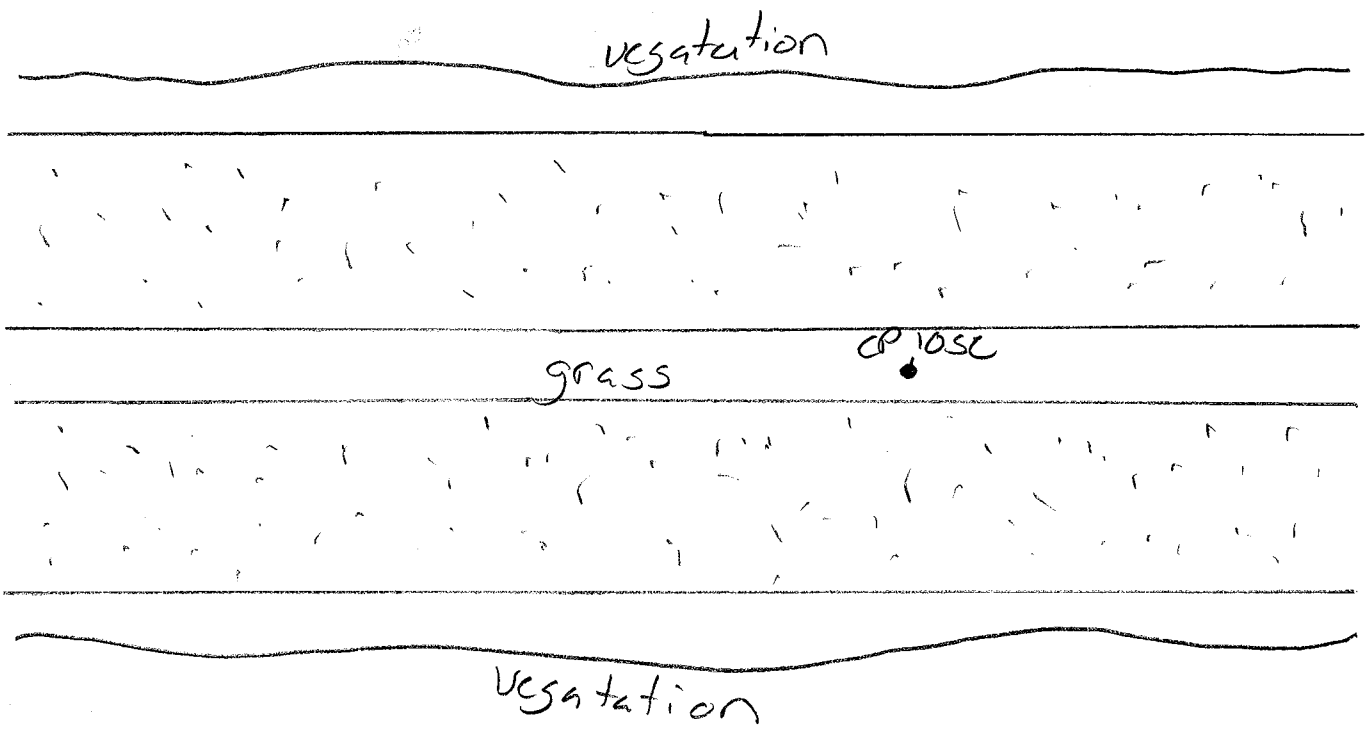
SUBJECT

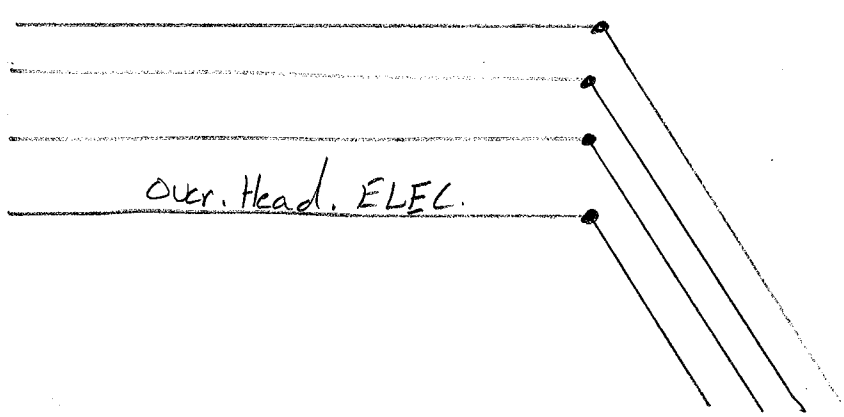
BY



CP 1052







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PROJECT _____

SUBJECT _____

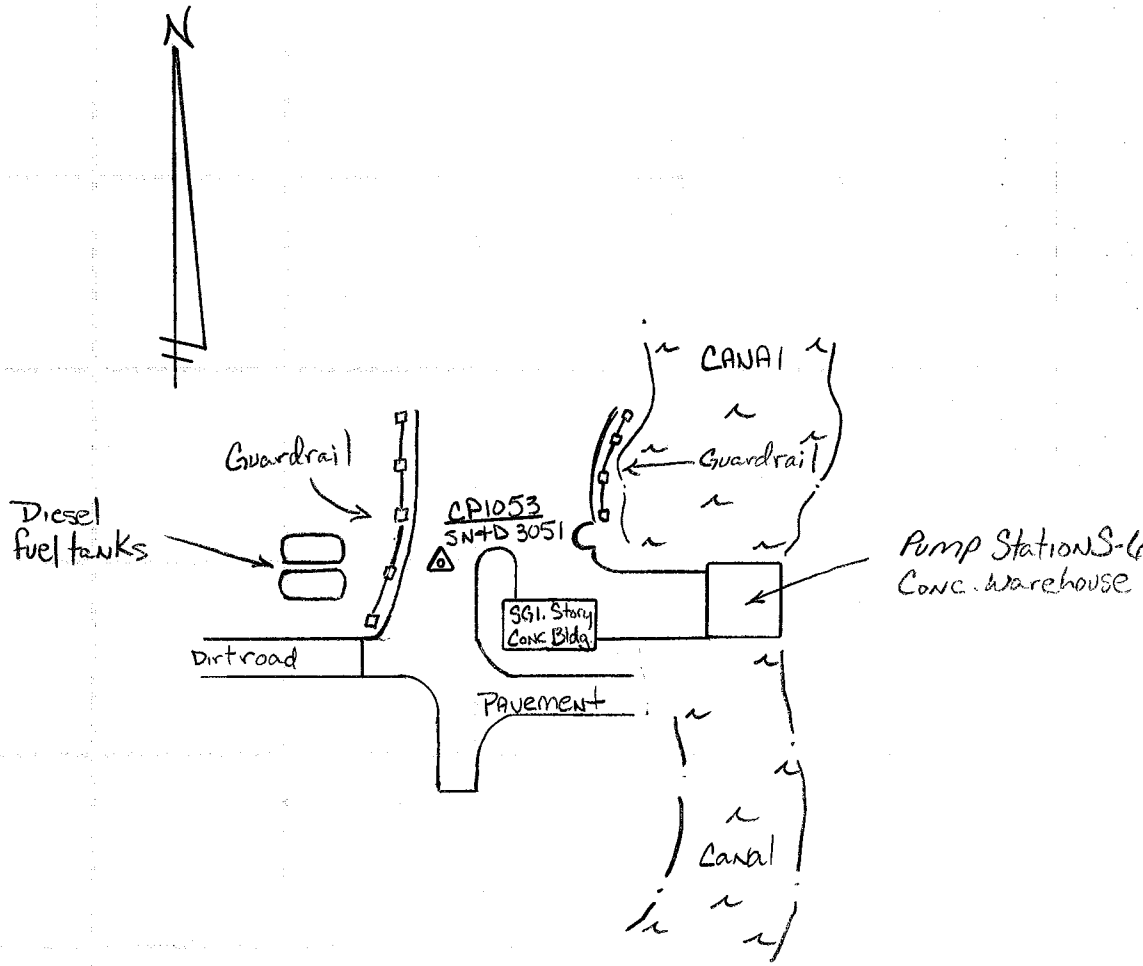
BY Yamil

CP 1053



Found FCE 1560
4" Brass Disc
War Dept. - Corps of Engineers
U.S. Army

Found FCE 1559
4 Brass Disc
War Dept. - Corps of Engineers
U.S. Army



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ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

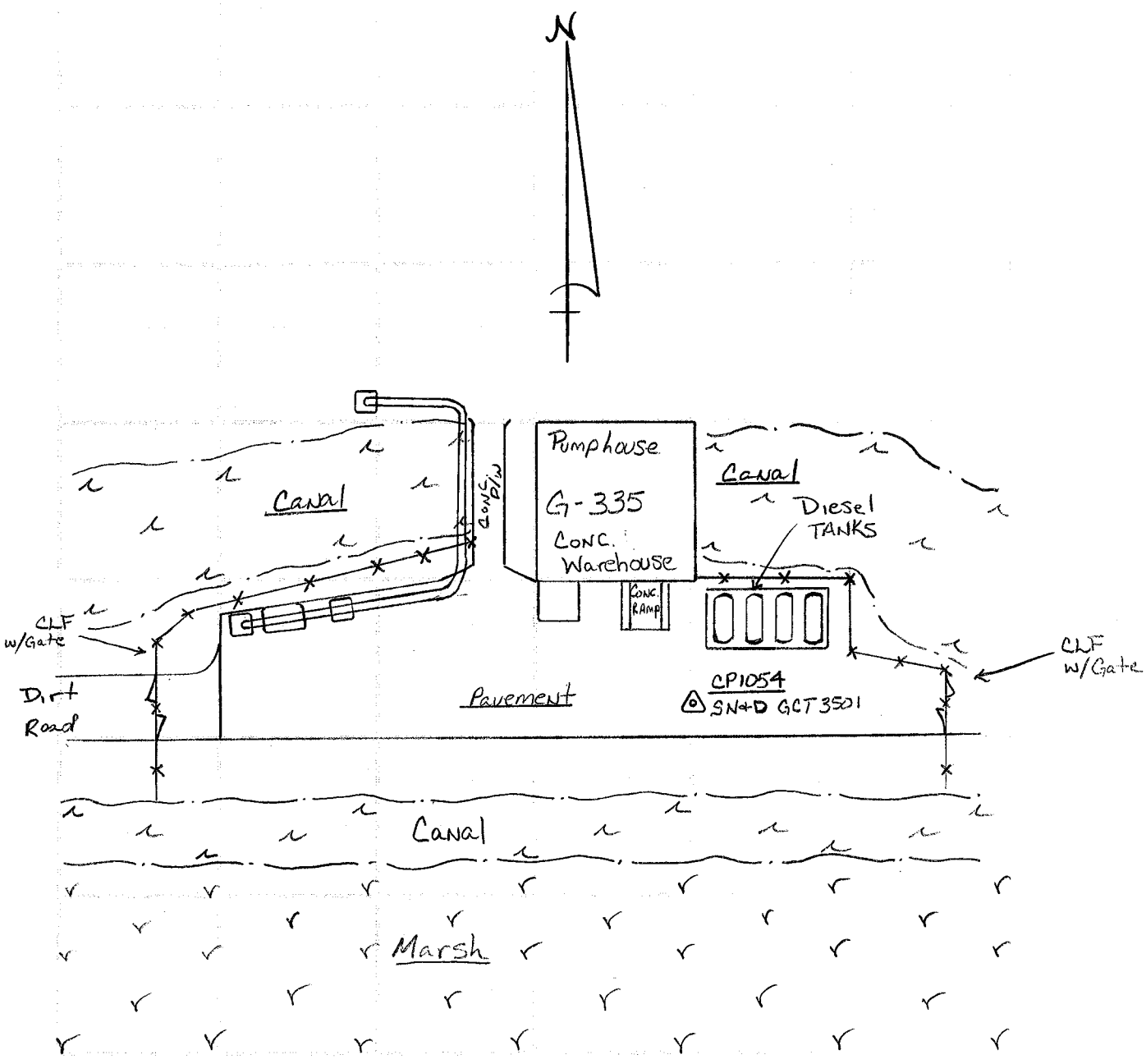
PROJECT

SUBJECT

BY Yamil

CP1054





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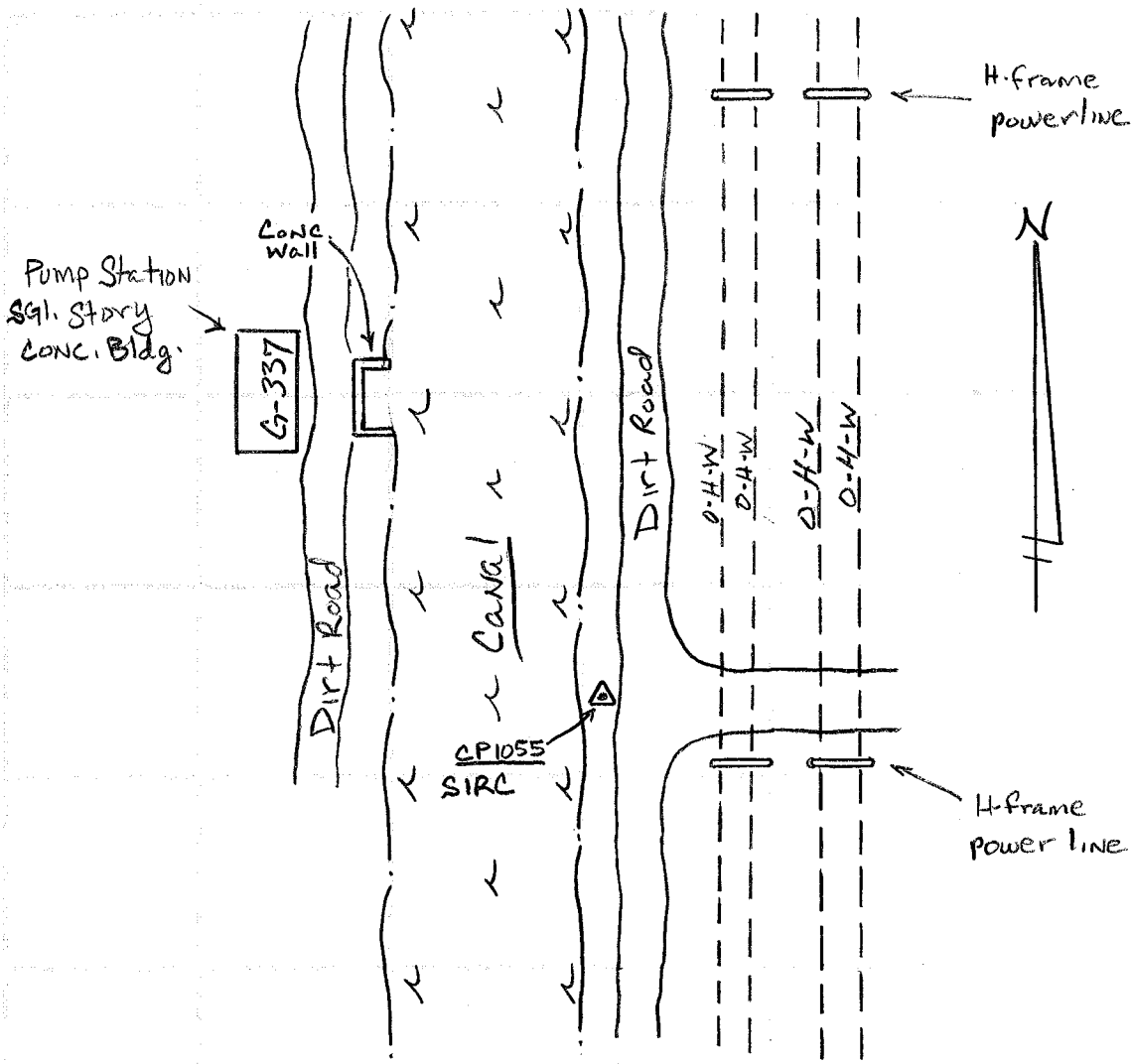
PROJE

SUBJE

BY ___

CP 1055





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PROJECT _____

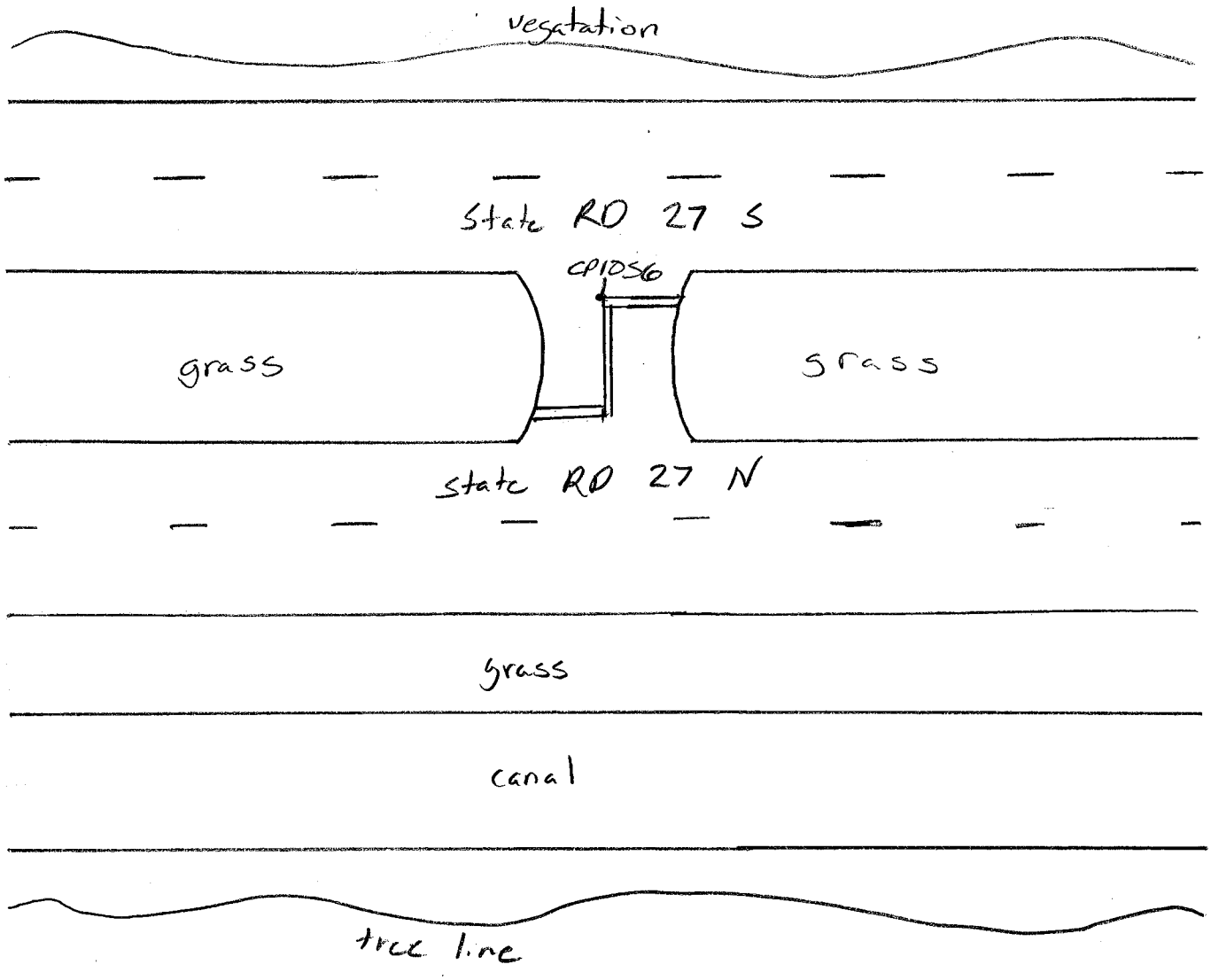
SUBJECT _____

BY _____



CP1056

N



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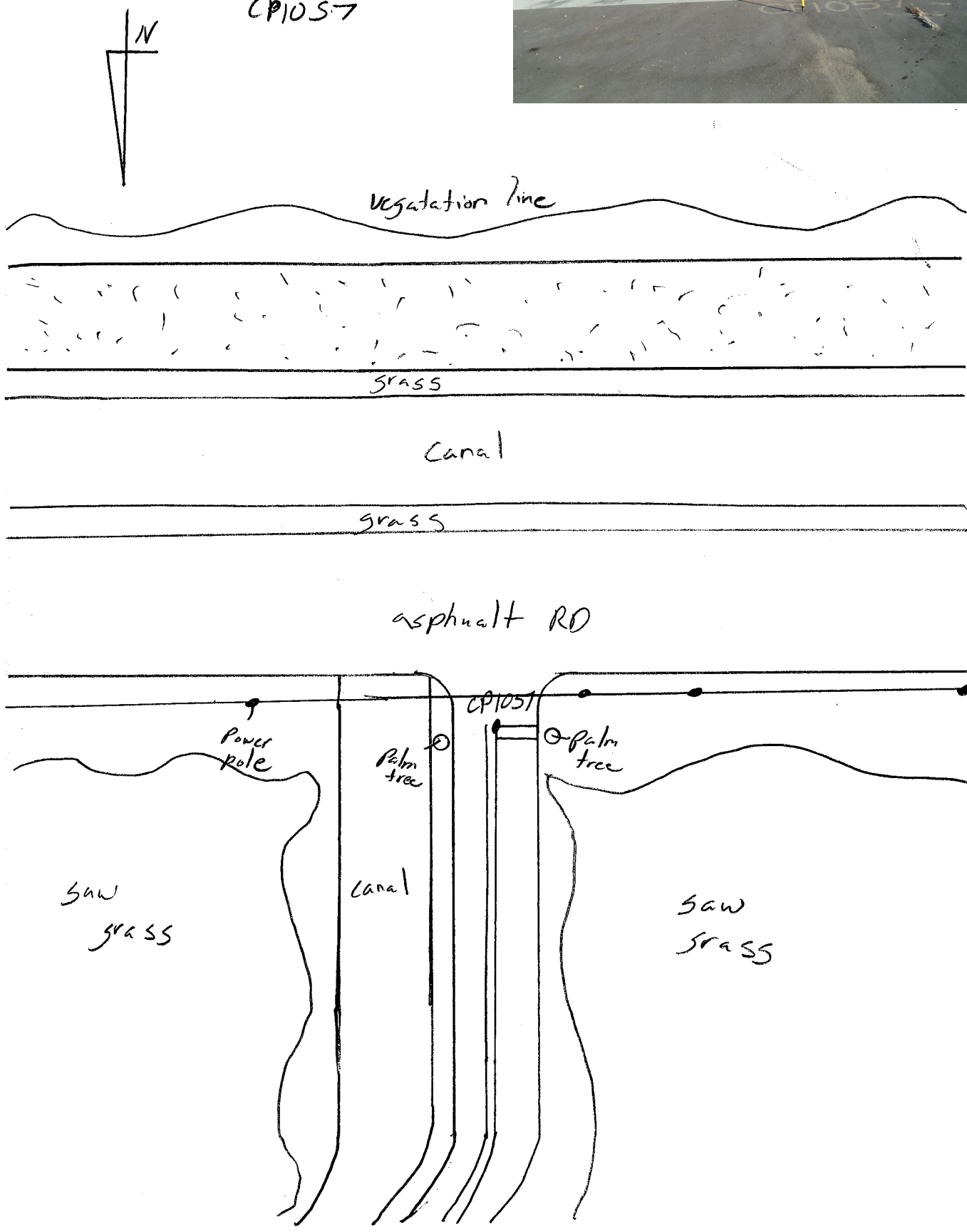
PROJECT _____

SUBJECT _____

BY _____



CP1057



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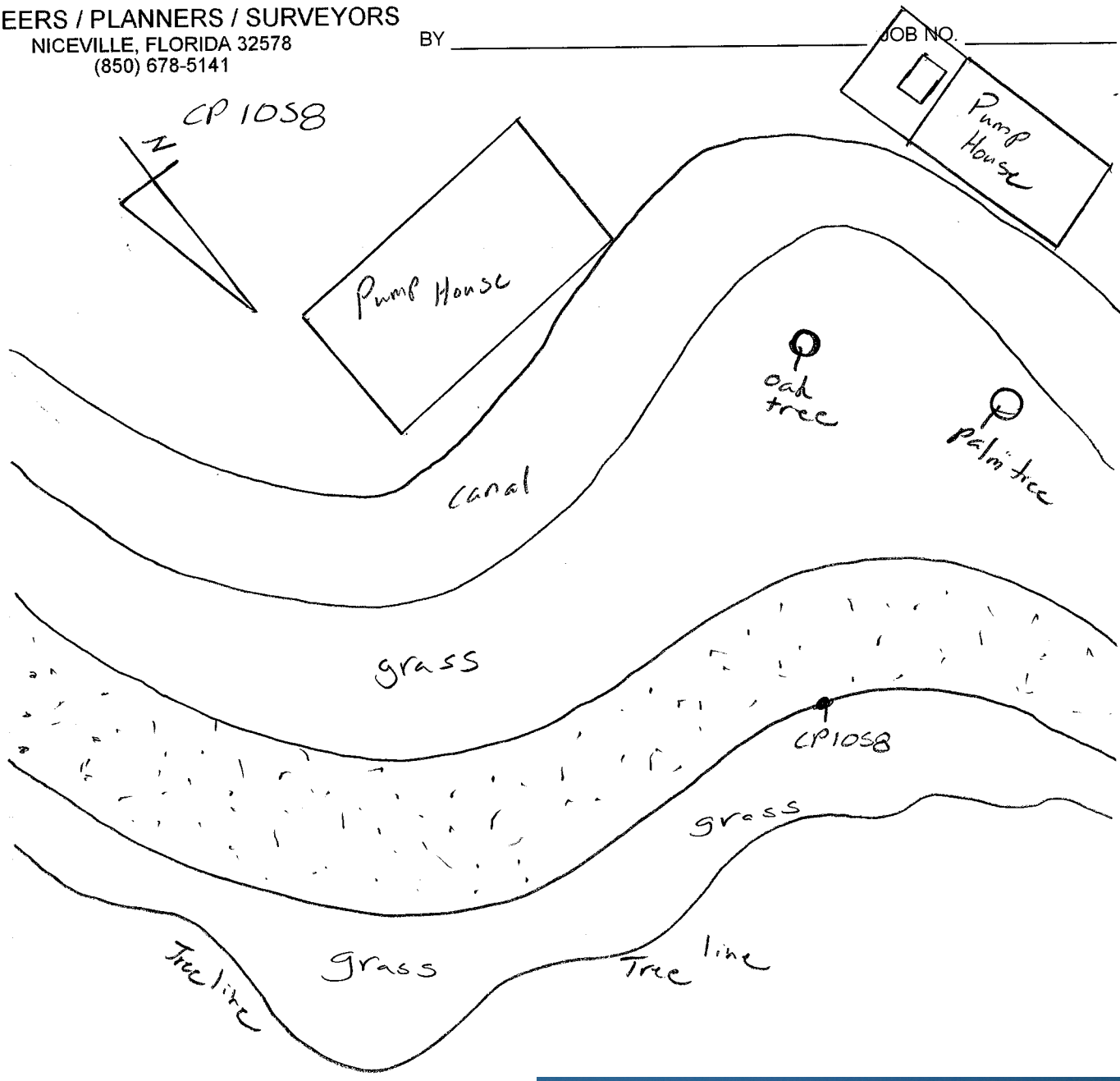



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PROJECT _____

SUBJECT _____

BY _____



CP 1054

N

vegatation line

Power line

Powerpole

Canal RD

CP1054

grass

grass

canal

grass

Canal RD

grass

vegatation line

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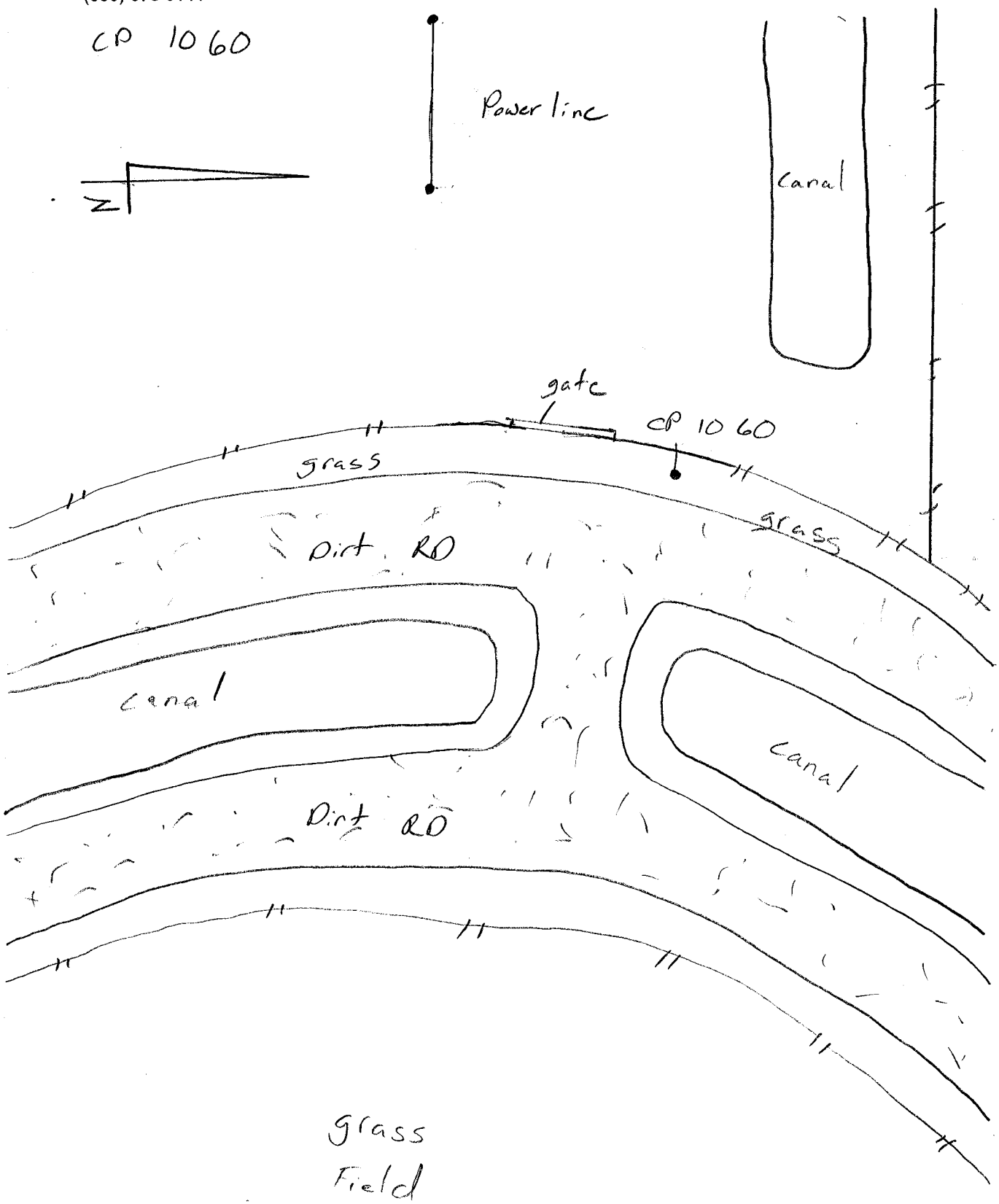
SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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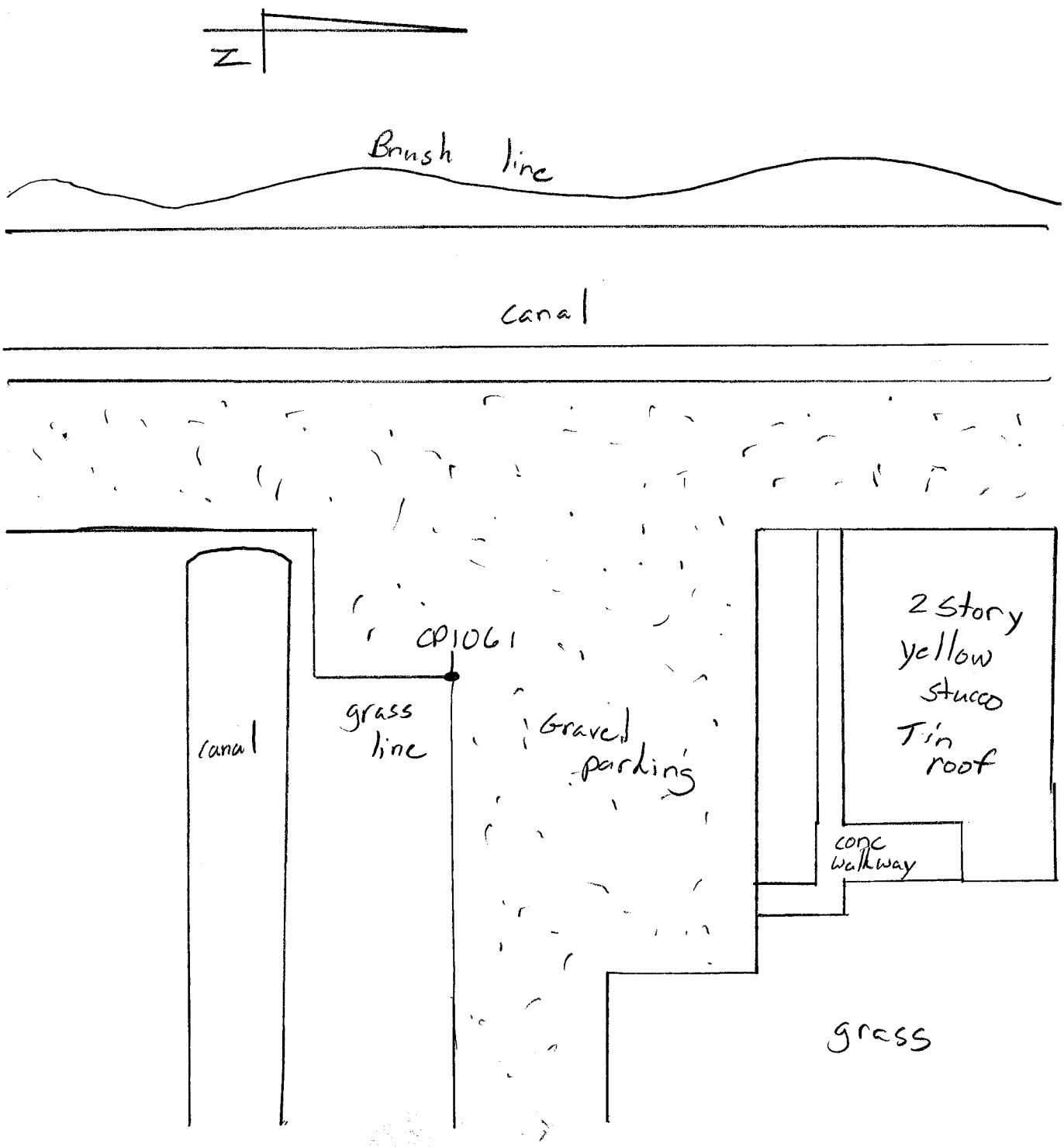
PROJECT

SUBJECT

BY

CP 1061





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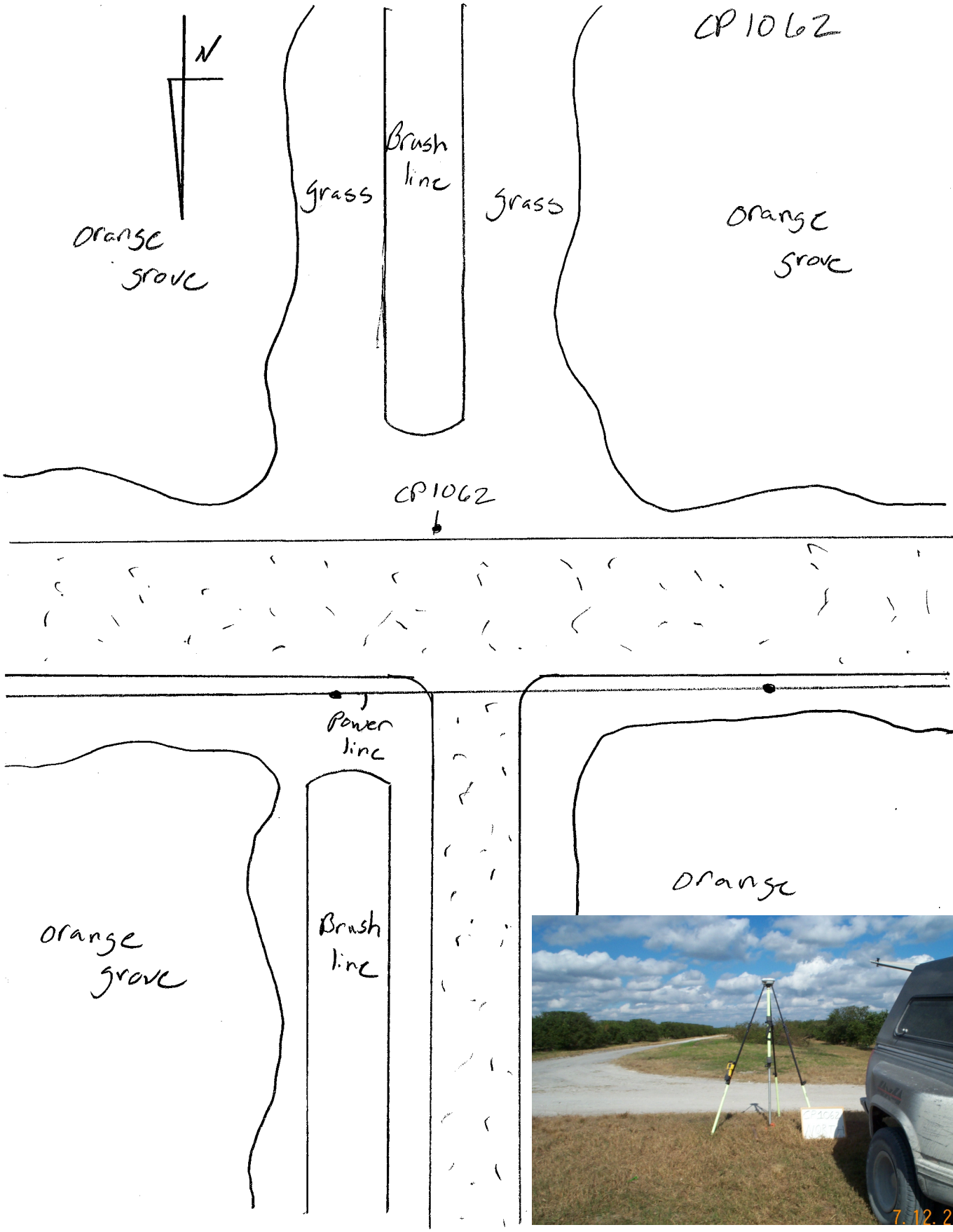

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SUBJECT _____

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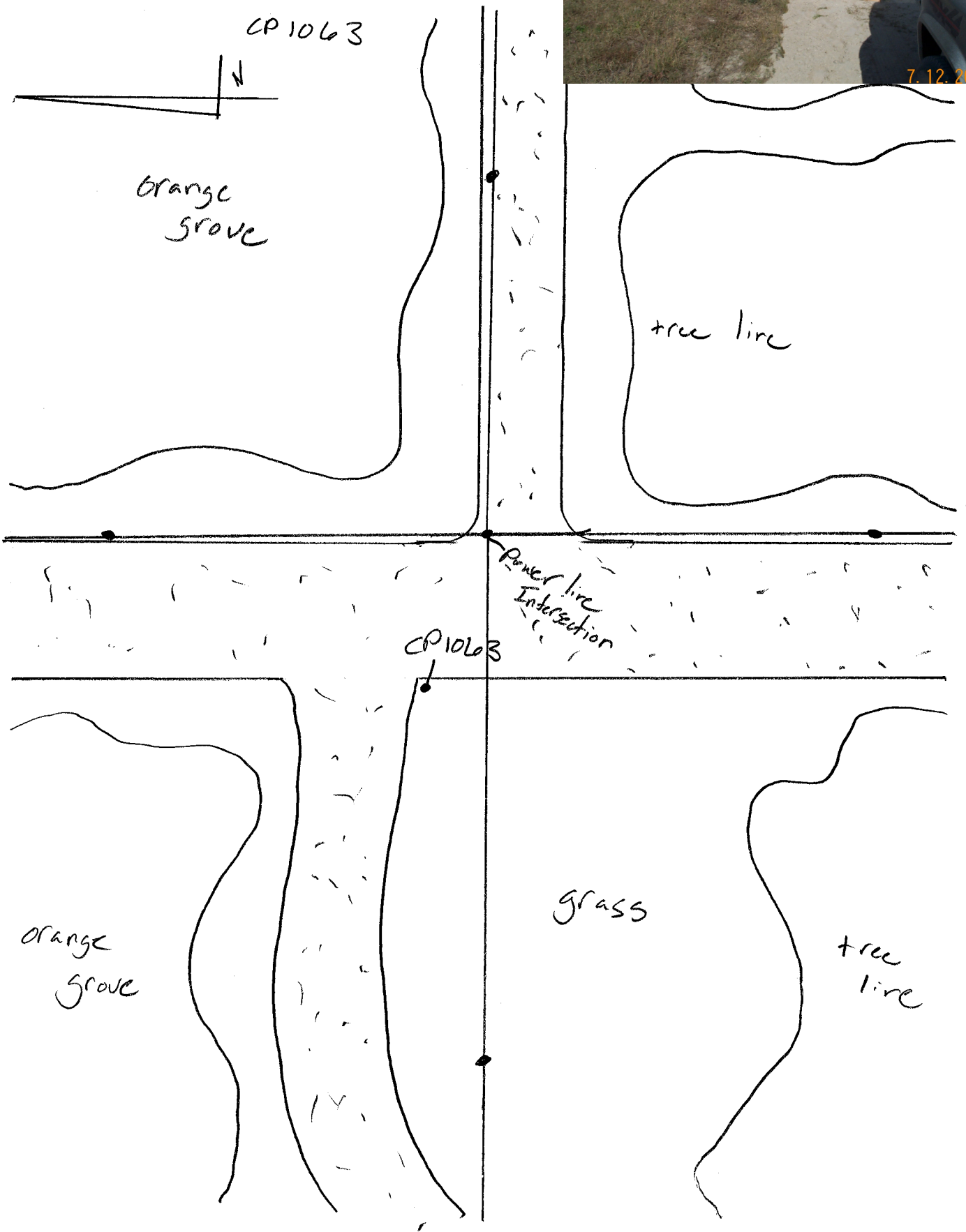

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SUBJECT _____ DATE _____

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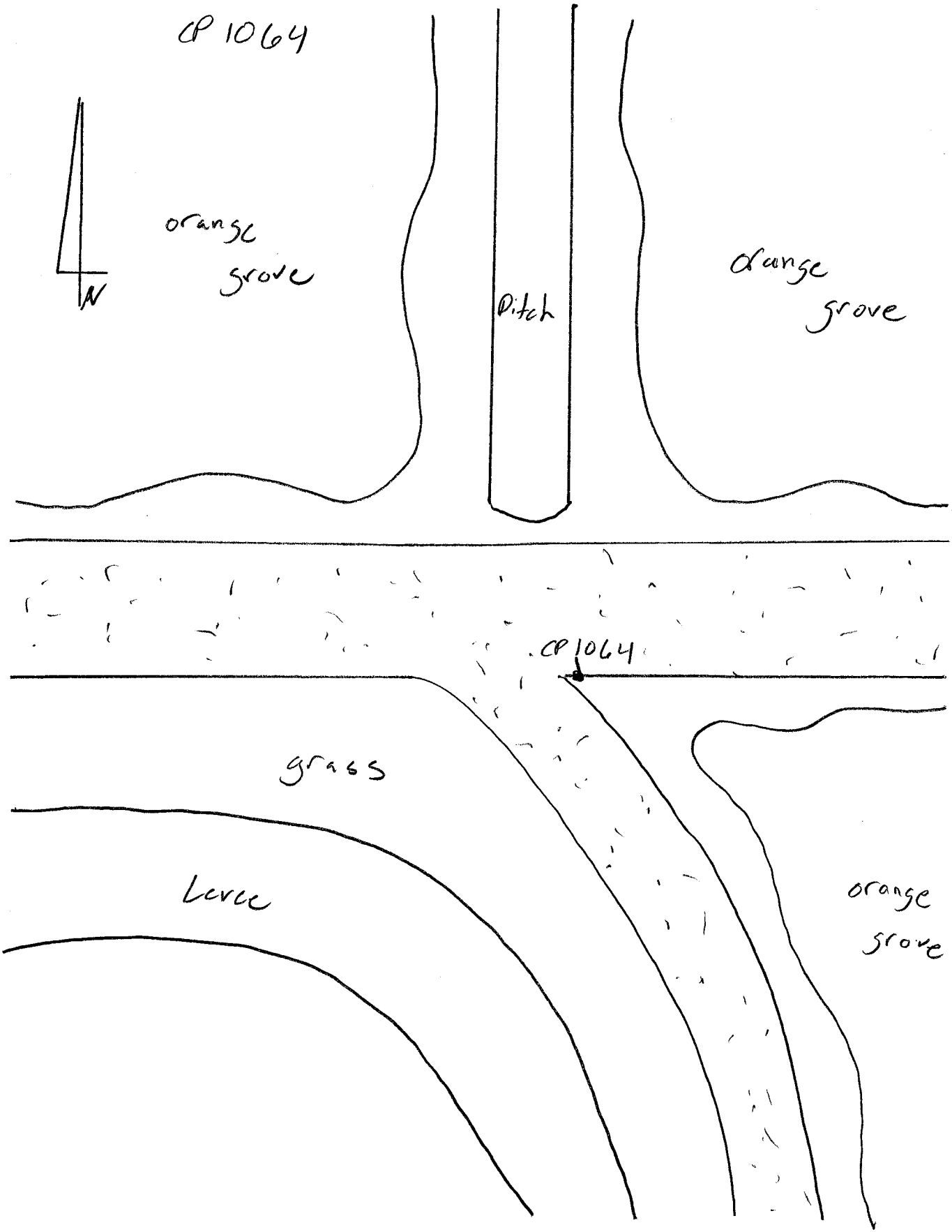

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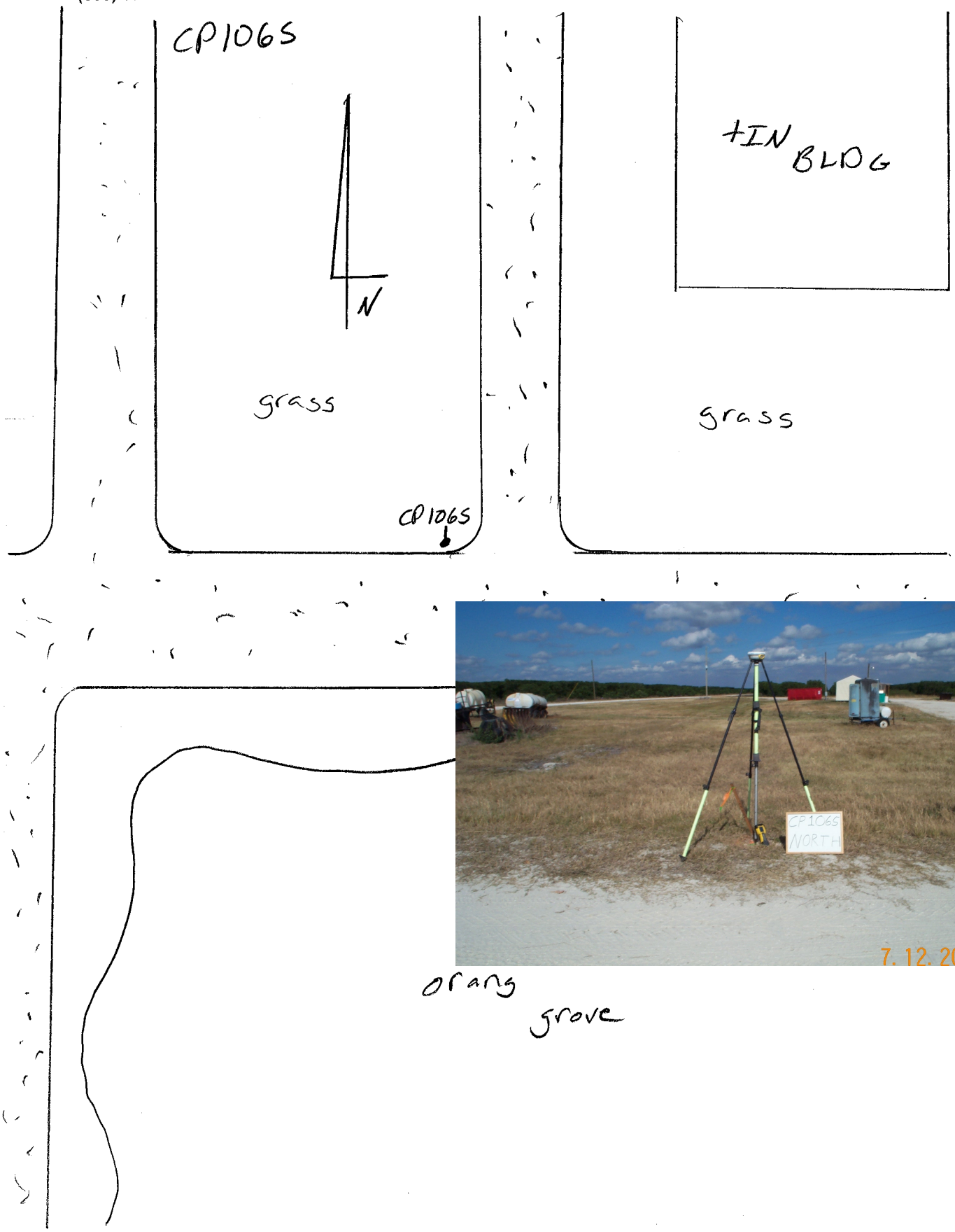
BY _____ JOB NO. _____



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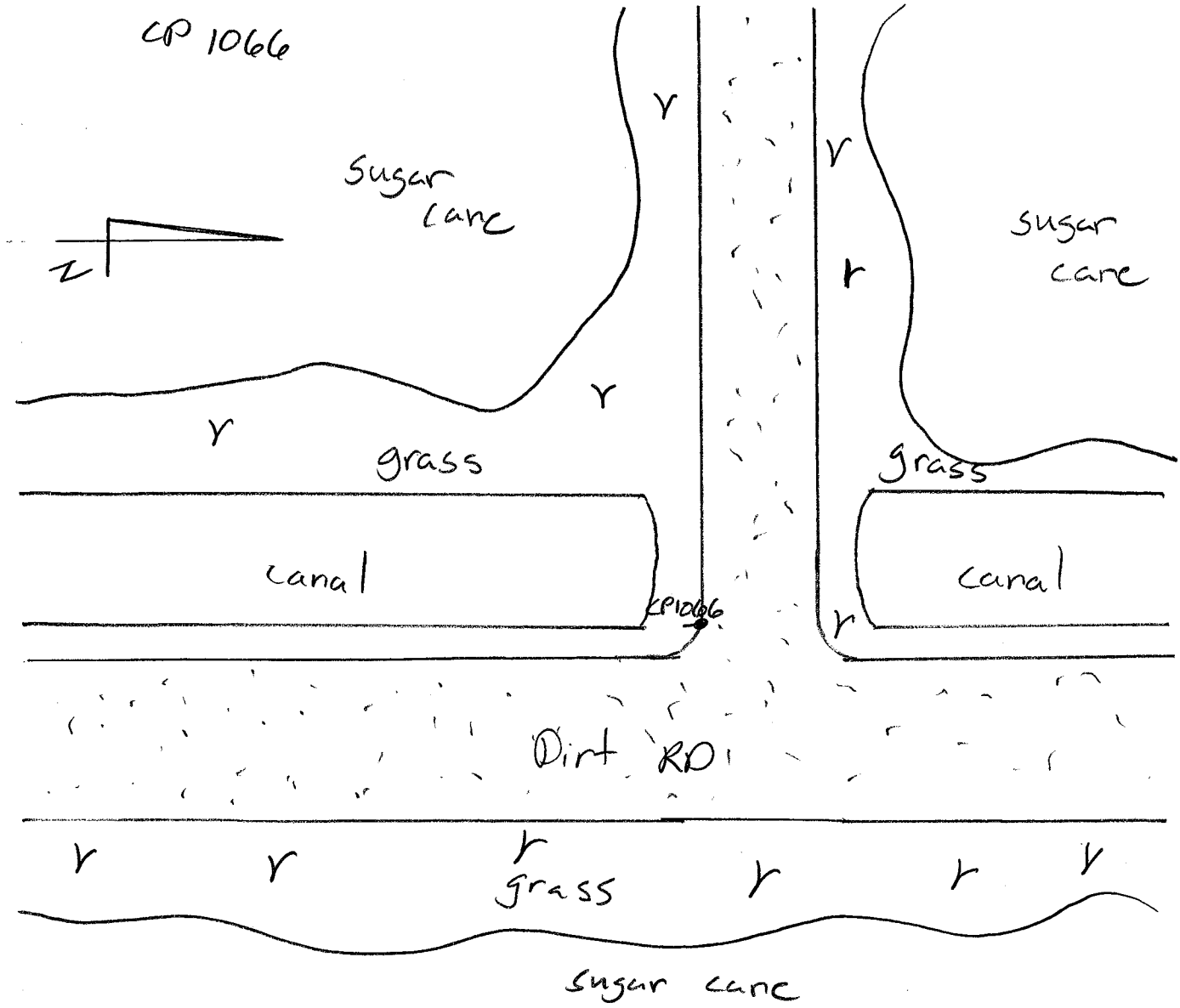

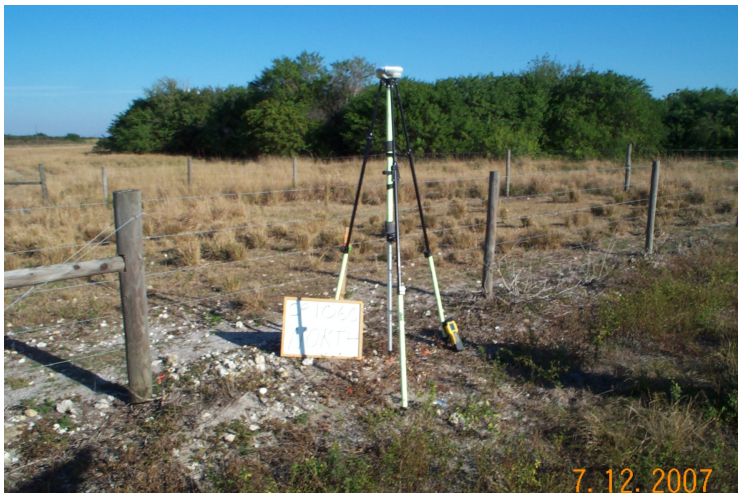

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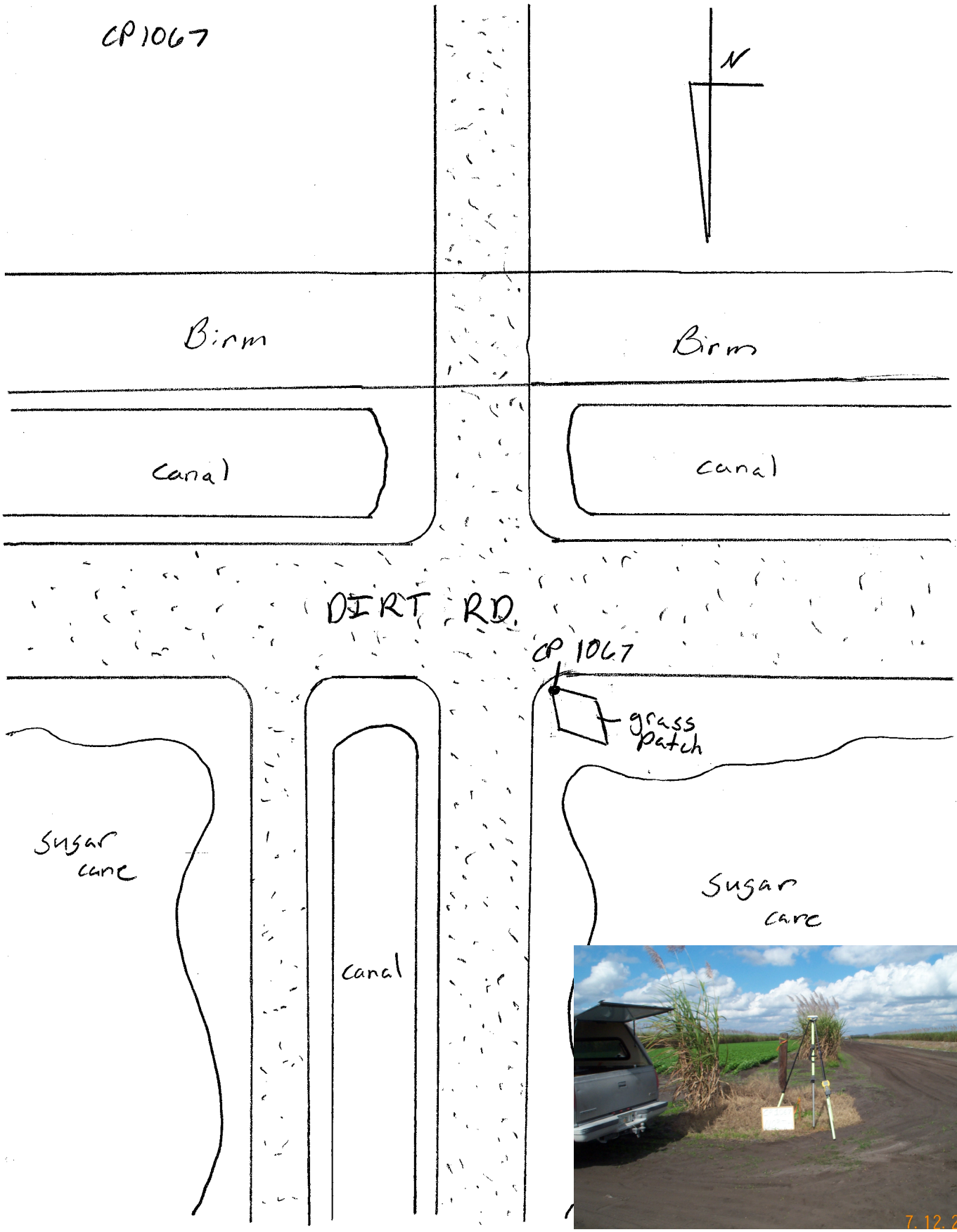

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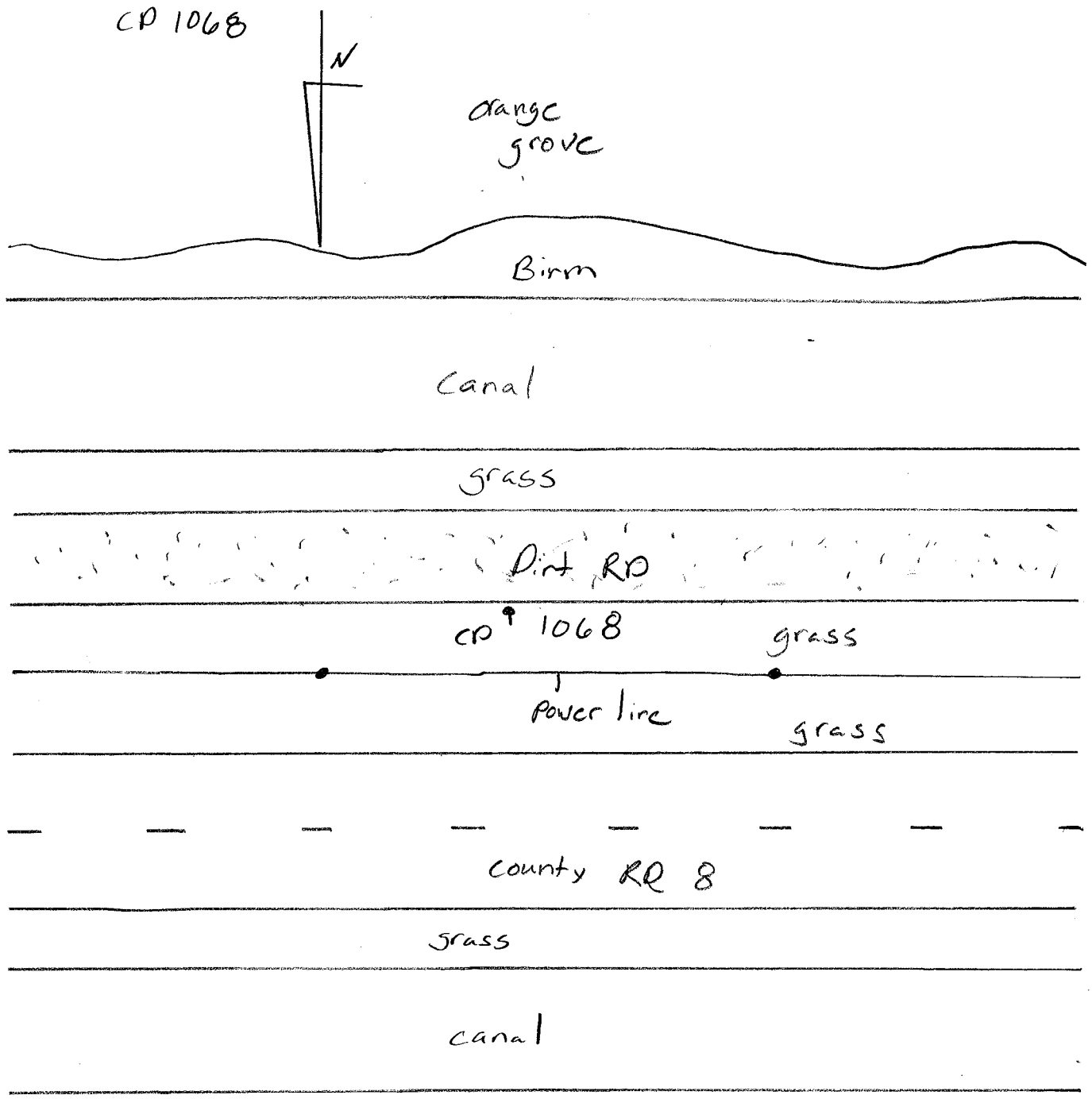
SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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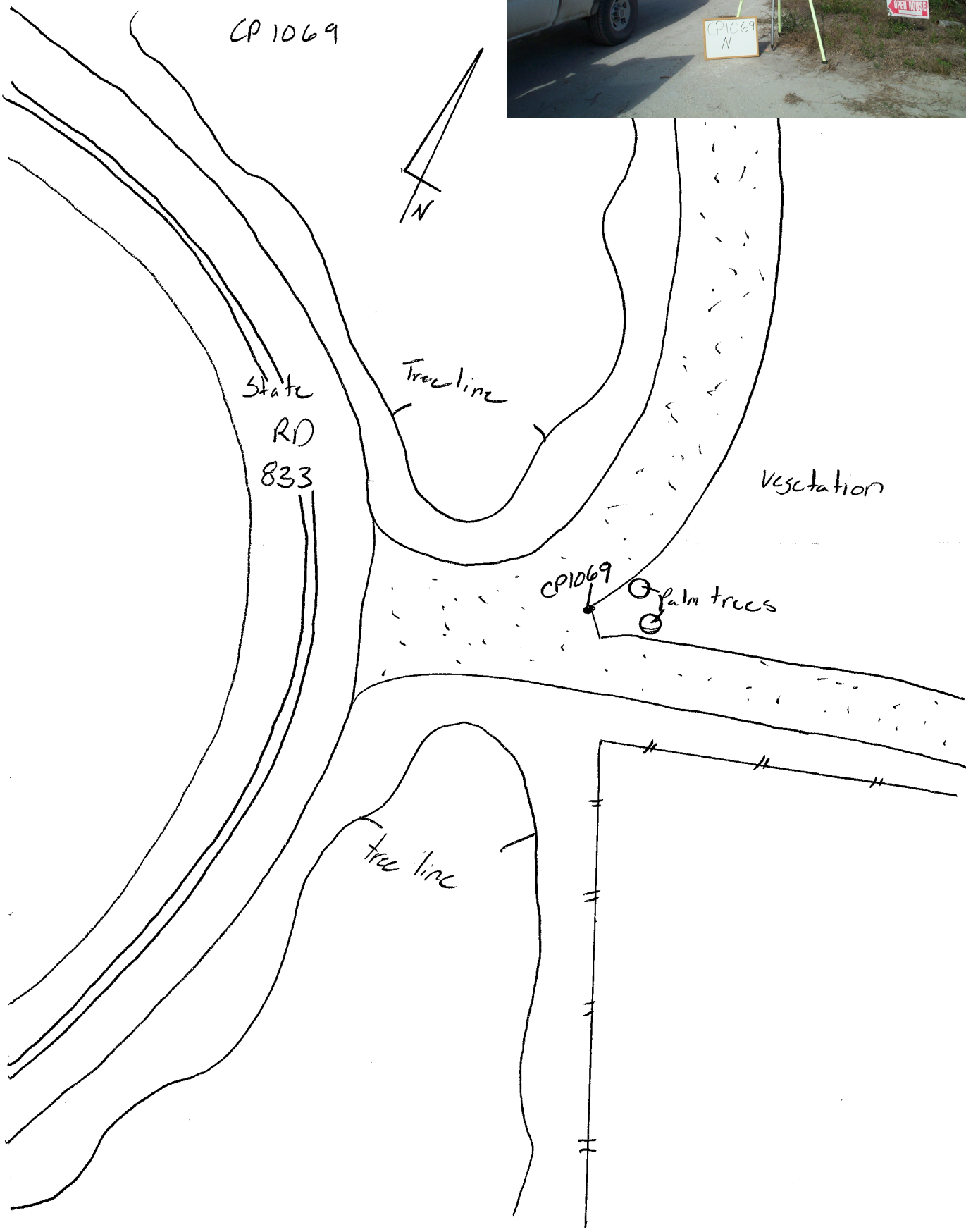
PROJECT _____

SUBJECT _____

BY _____





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PROJECT _____

SUBJECT _____

BY _____



CP 1070

6'-8' Brush

N

canal

State RD 833

CP1070

canal

cow Pasture

cow pasture

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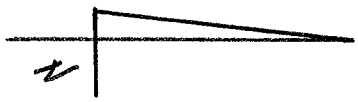
PROJECT _____

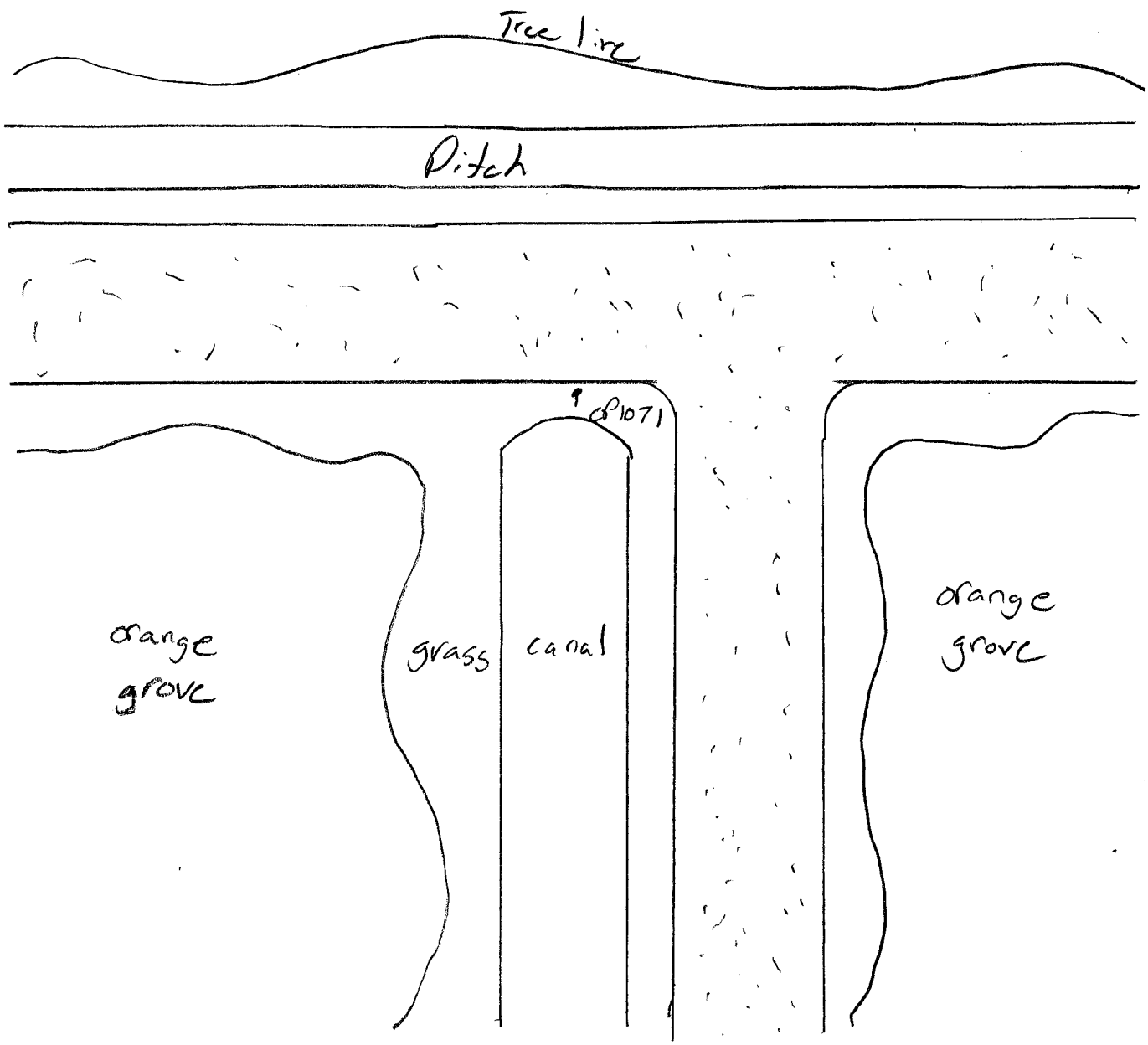
SUBJECT _____

BY _____



CP 1071





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PROJECT _____

SUBJECT _____

BY _____



CP 1073

N

Sod
FARM

vegatation

Dooley RD

CP 1073

palm tree

canal

Sod
FARM

GUSTIN, COTHERN & TUCKER, INC.
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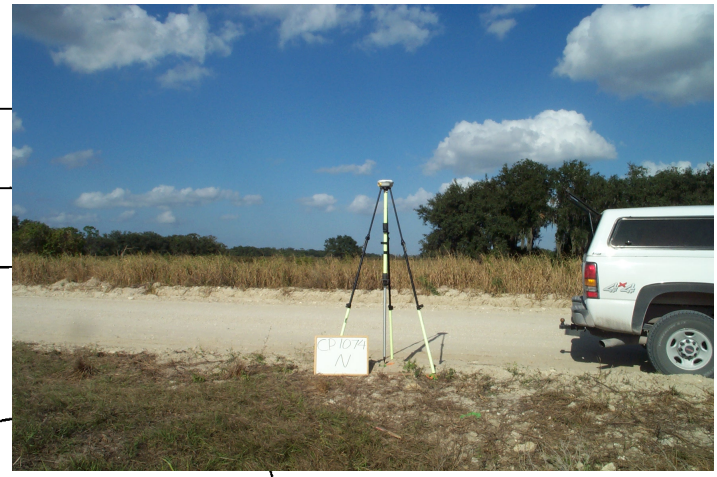
SUBJECT _____

BY _____



CP 1074

N

Patch of Trees

Canal

DIRT RD

CP 1074

grass mound

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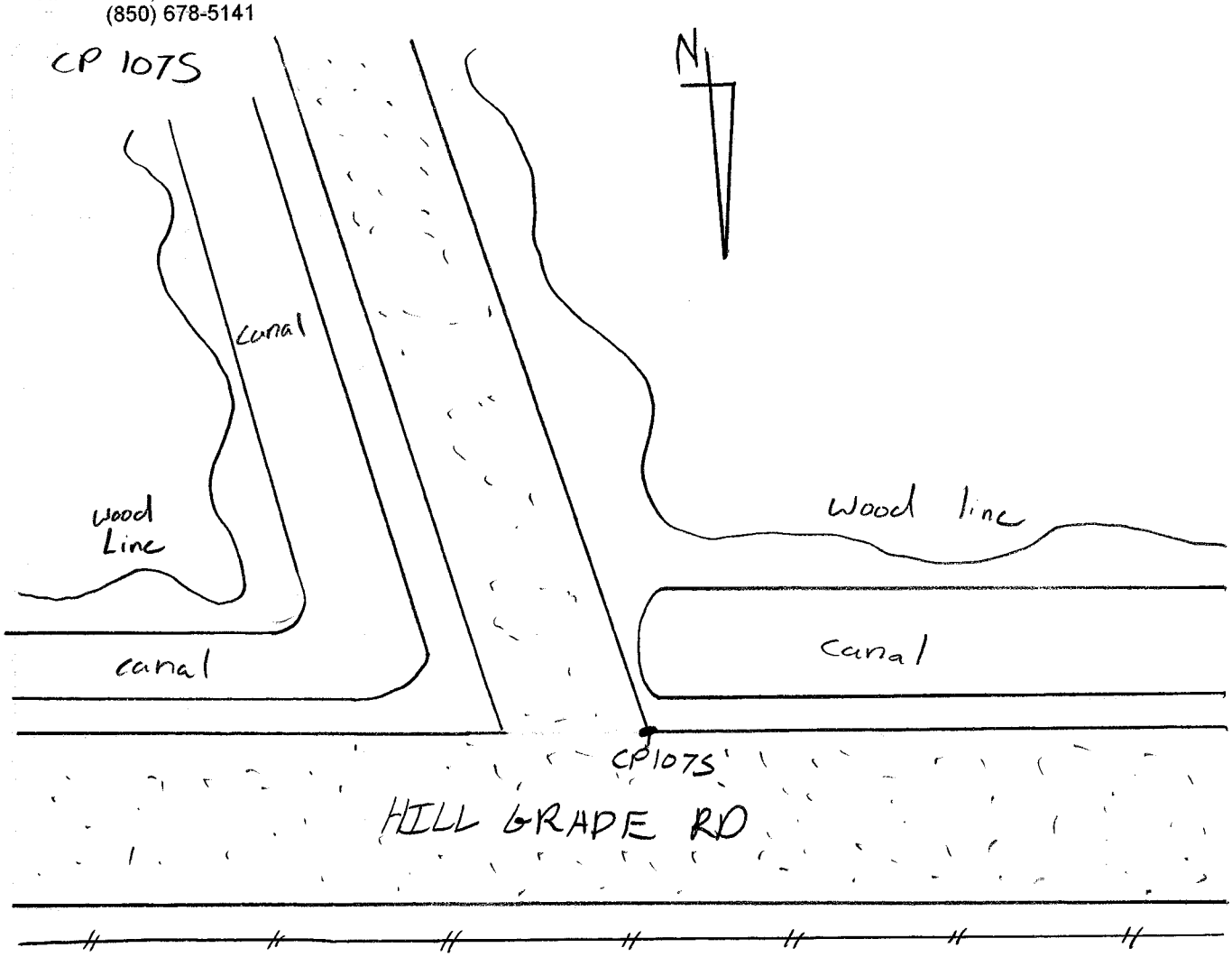

grass and patchy Woods



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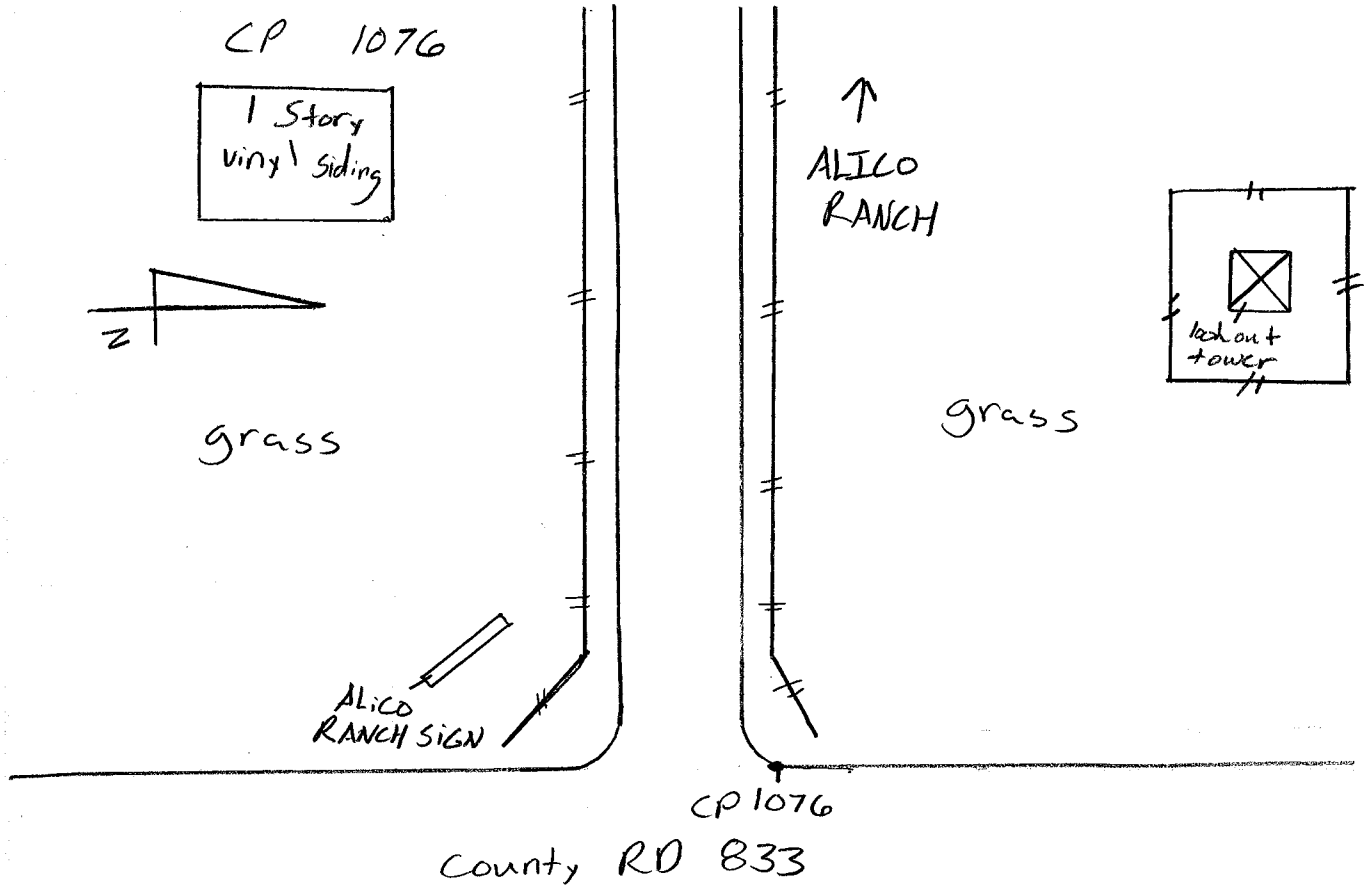

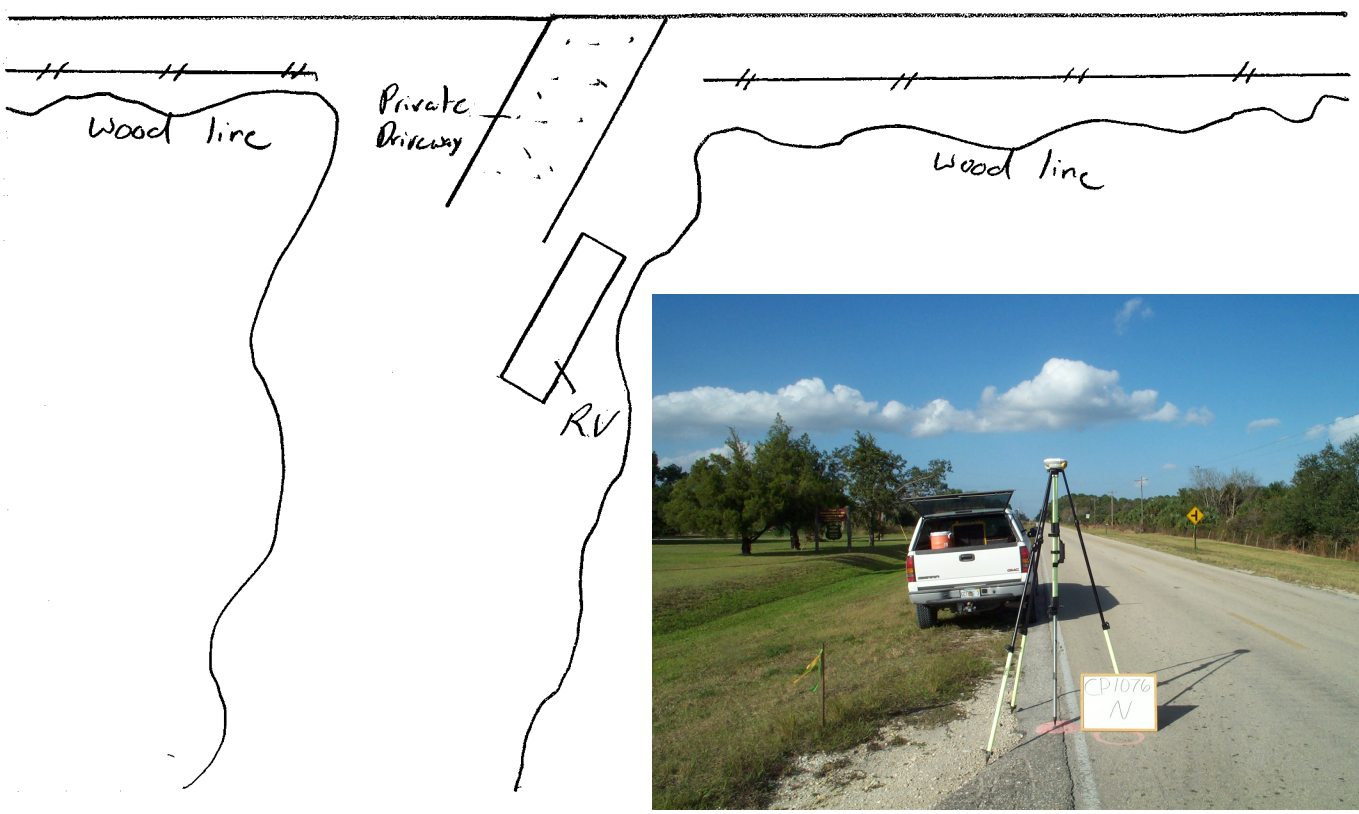

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SUBJECT _____

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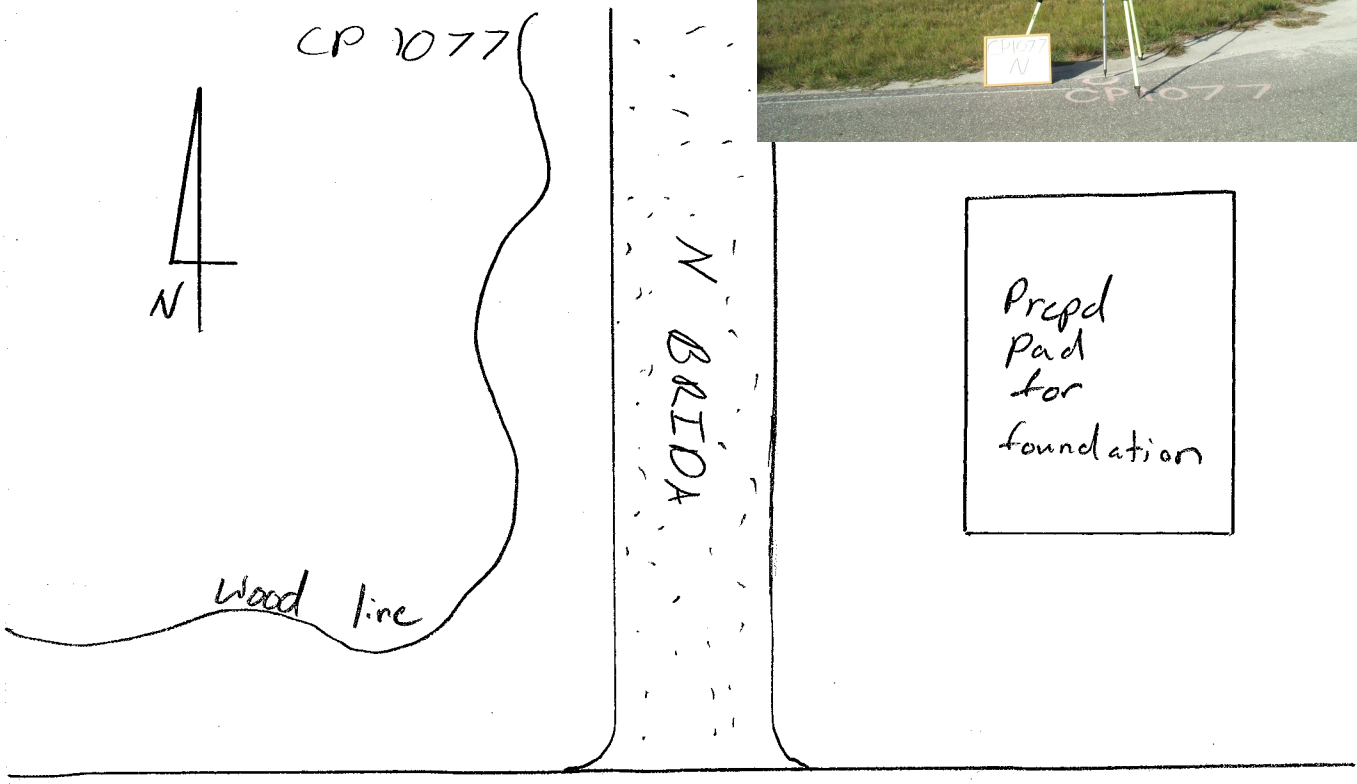
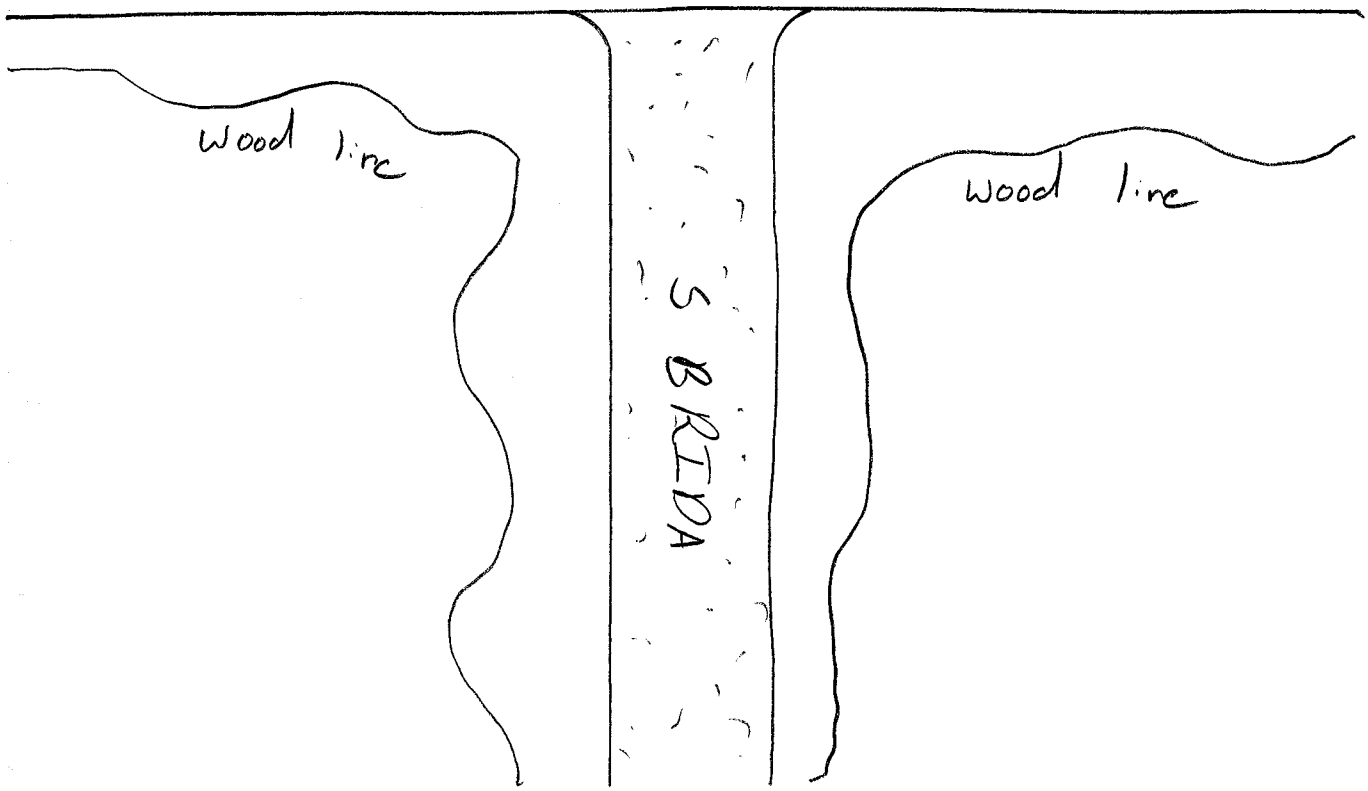


HUNTING CLUB AVE



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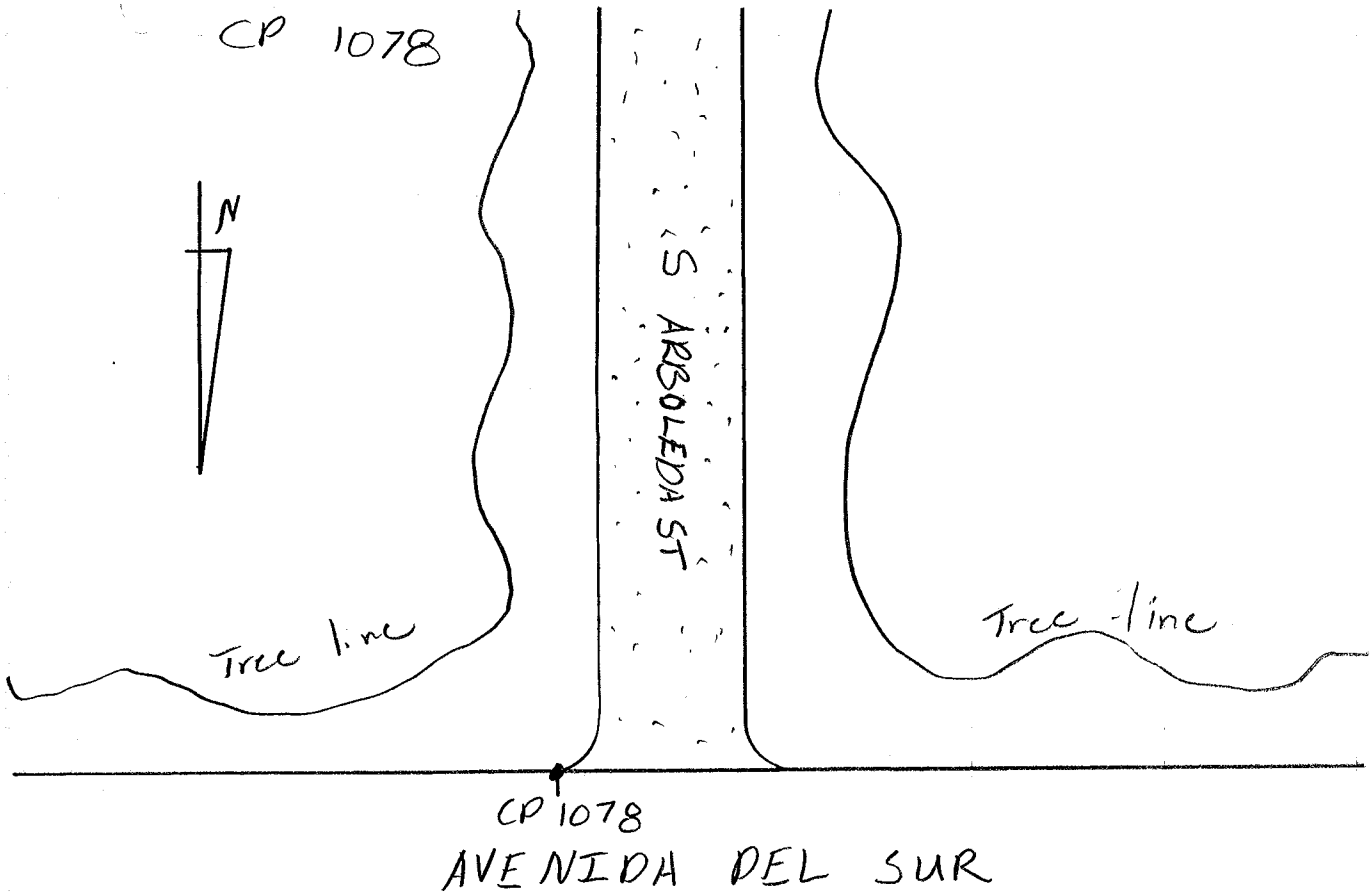
SUBJECT _____ DATE _____

BY _____ JOB NO. _____





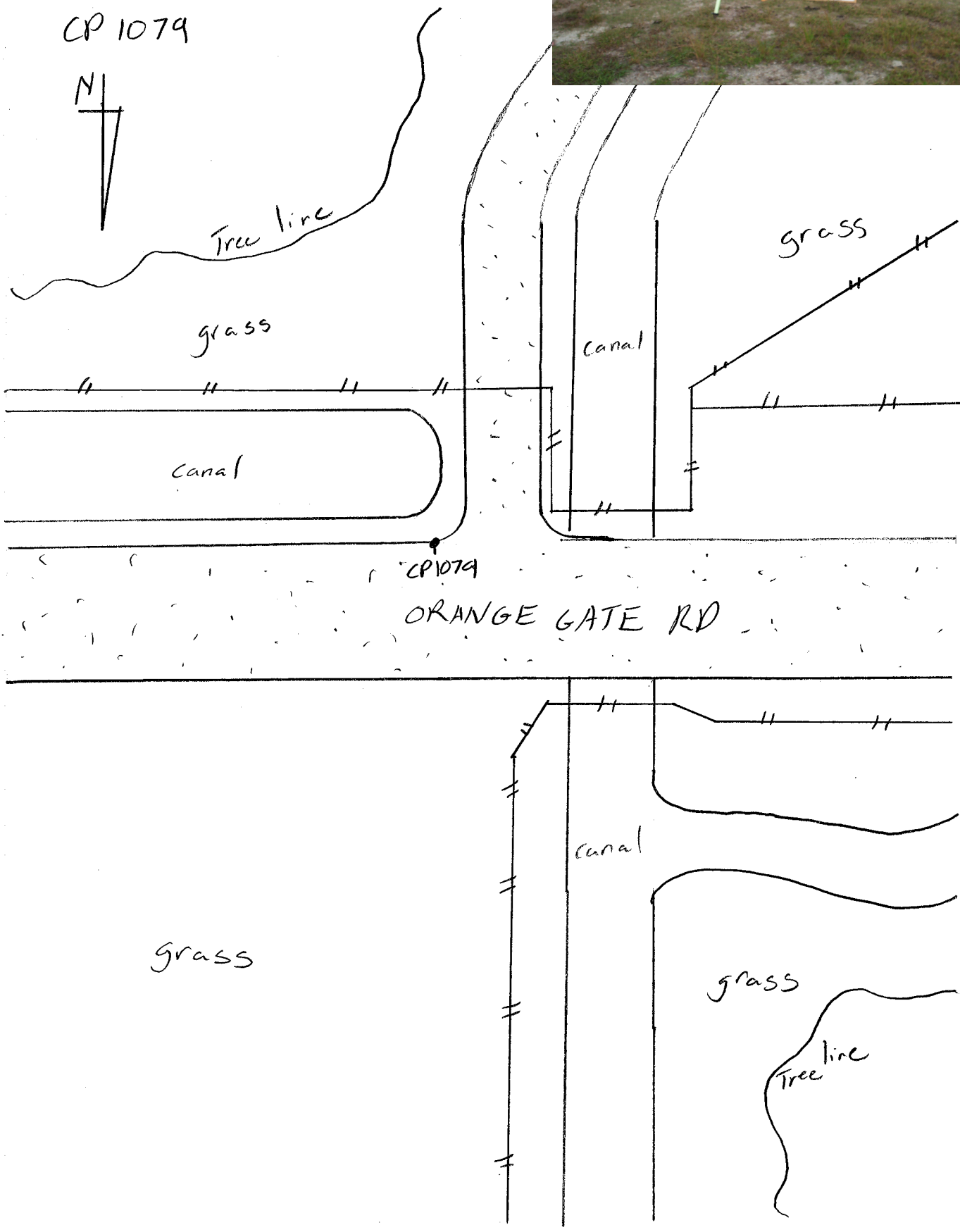
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____

SUBJECT _____

BY _____





GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578
(850) 678-5141

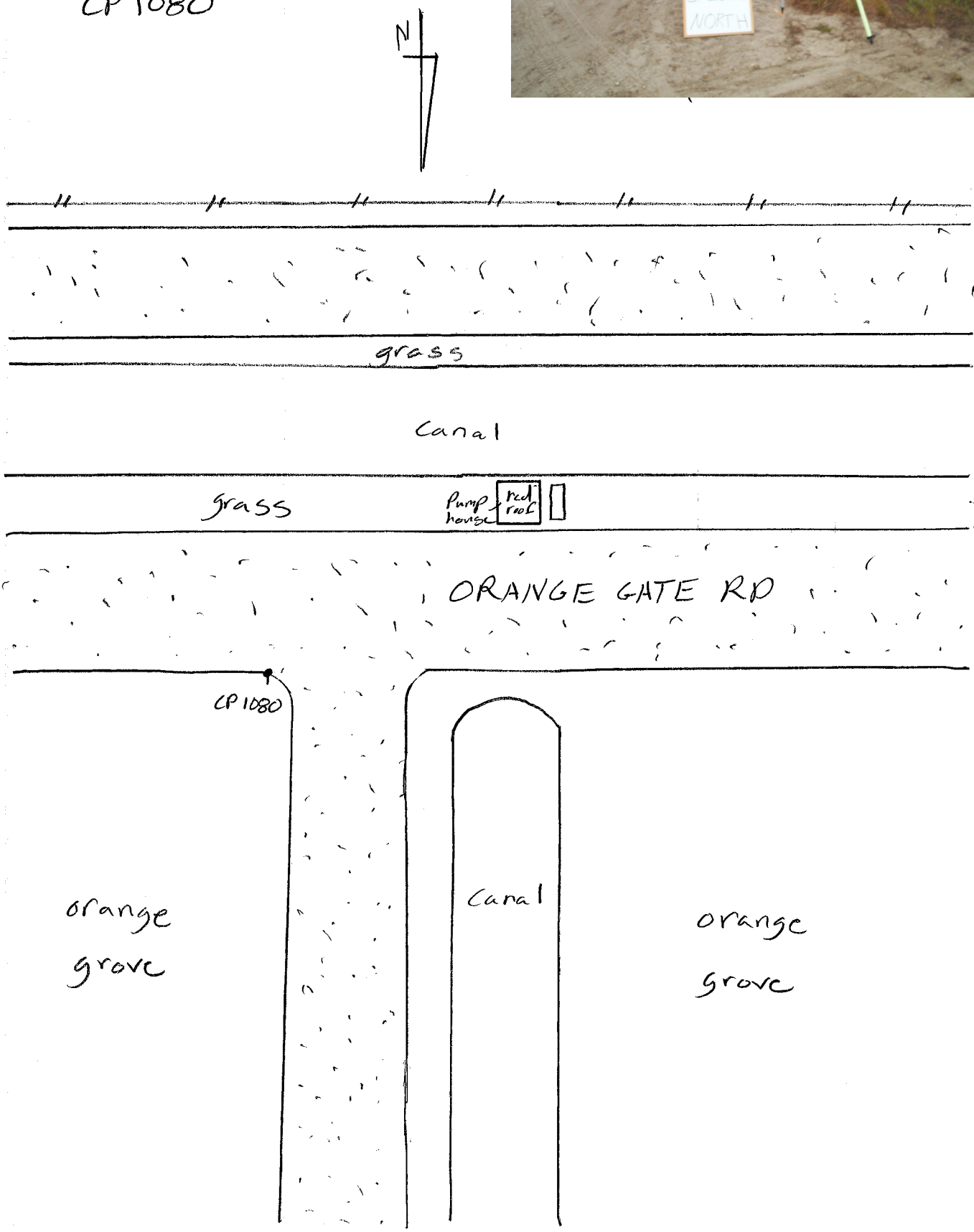
PROJECT _____

SUBJECT _____

BY _____

CP 1080





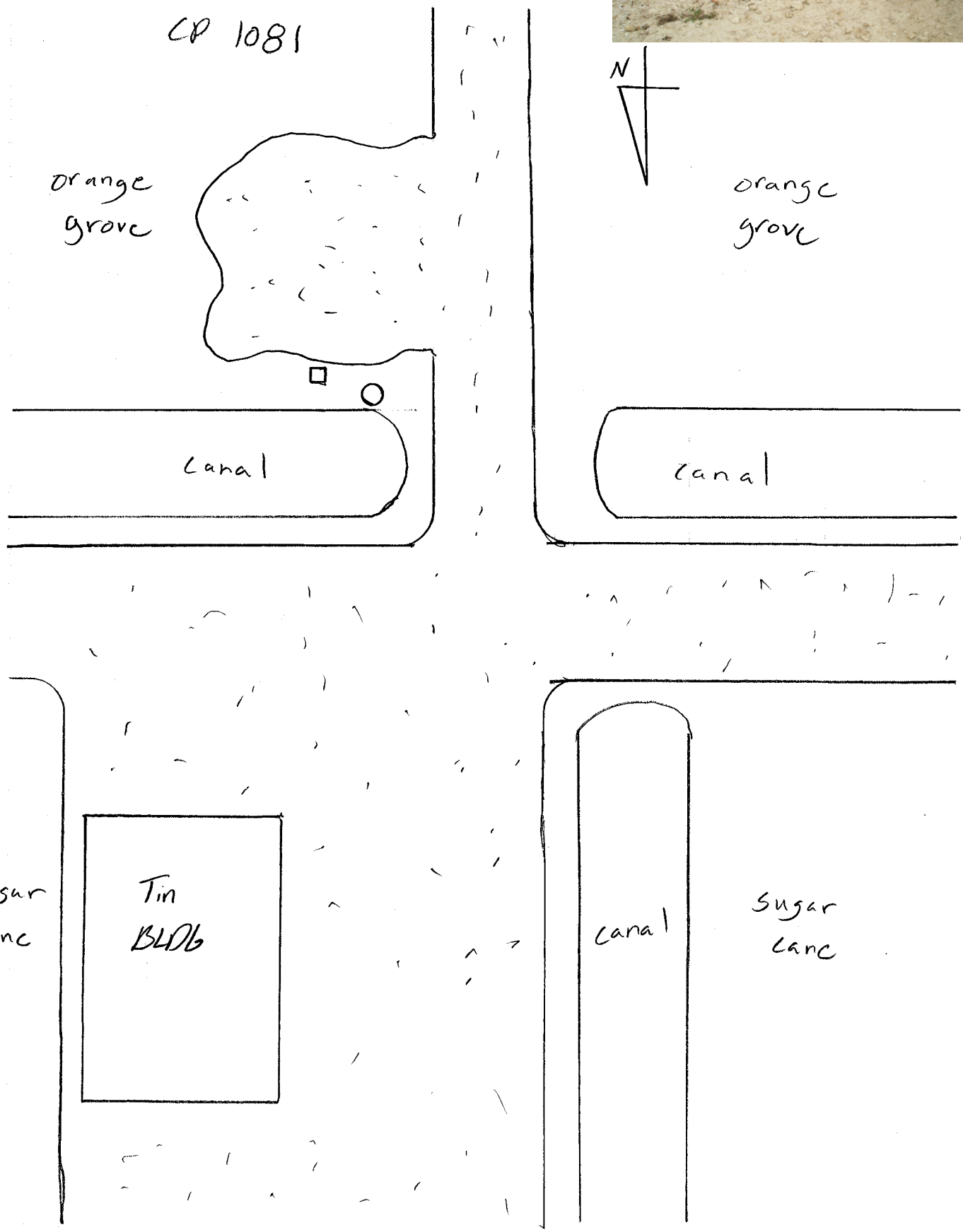
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____

SUBJECT _____

BY _____





GUSTIN, COTHERN & TUCKER, INC.

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NICEVILLE, FLORIDA 32578
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PROJECT _____

SUBJECT _____

BY _____



CP 1082

N

Sugar cane

canal

grass field

Pump house

red roof

canal

CP 1082

canal

grass field

canal

Sugar cane

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

(850) 678-5141

PROJECT _____

SUBJECT _____

BY _____



CP 1083

N

trailor

grass alley way

tree line

old wood siding 1 story

RIVIERA ST

CP 1083

Pioneer first Baptist Church

trailor

grass field (few pine trees)

GUSTIN, COTHERN & TUCKER, INC.

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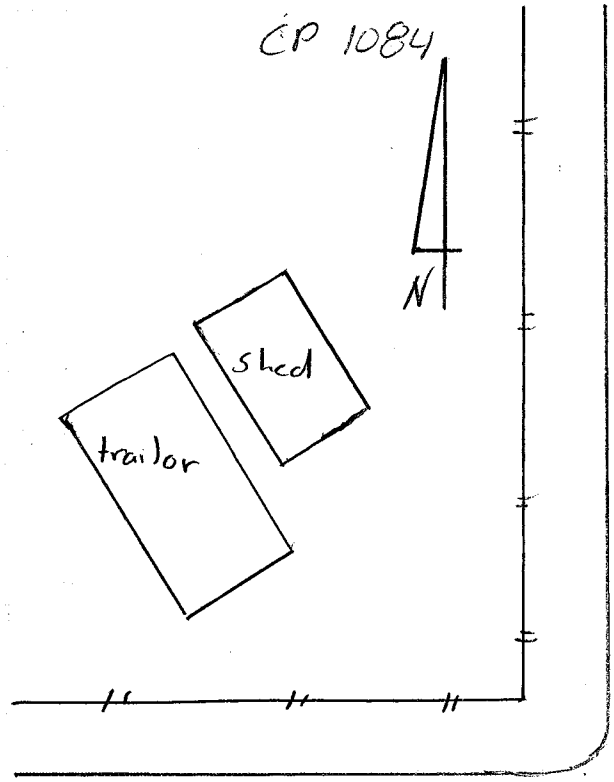
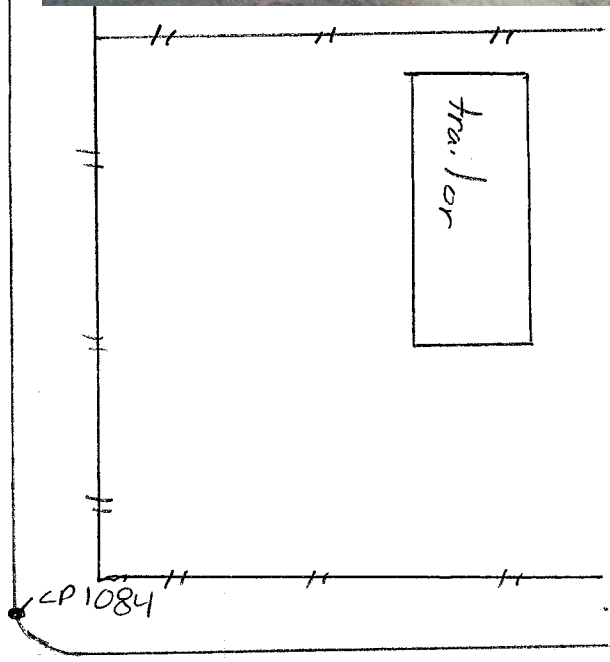
PROJECT _____

SUBJECT _____

BY _____

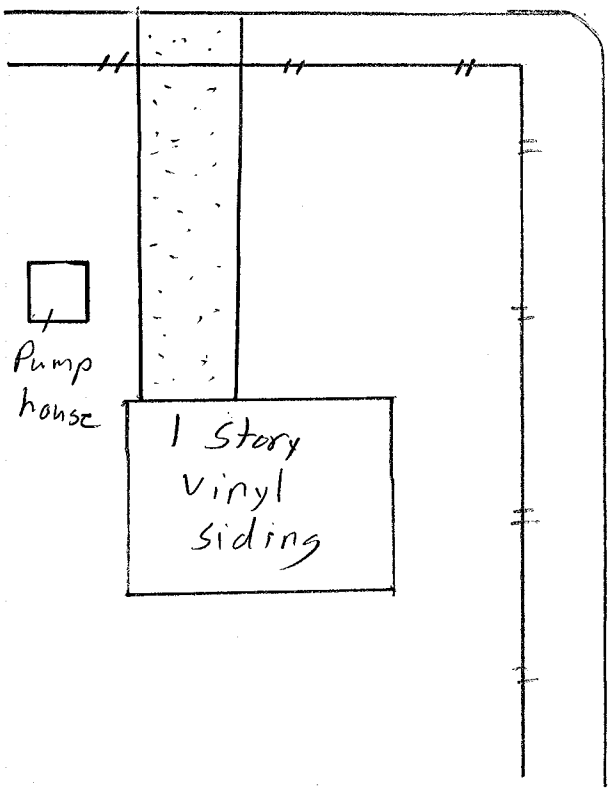


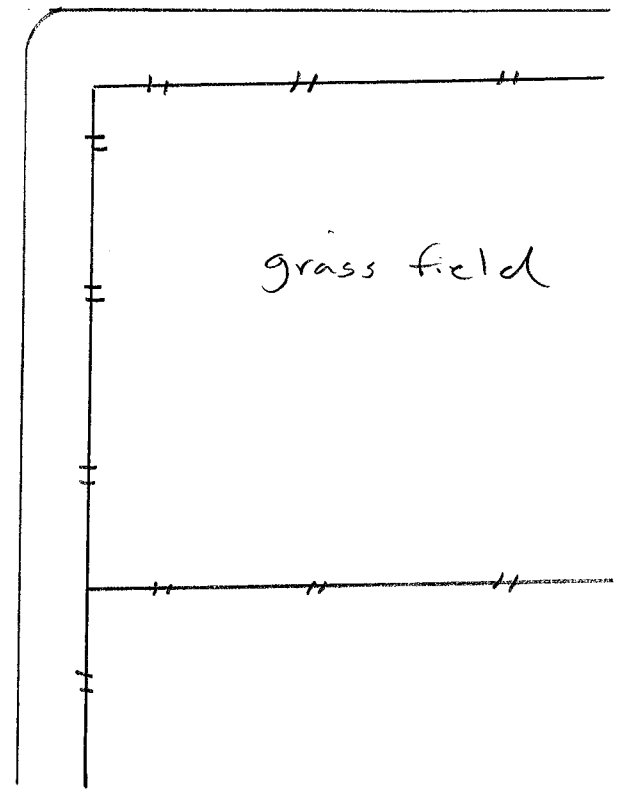




LAKE VIEW AVE

LAKE VIEW AVE





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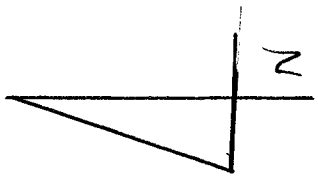
PROJECT _____

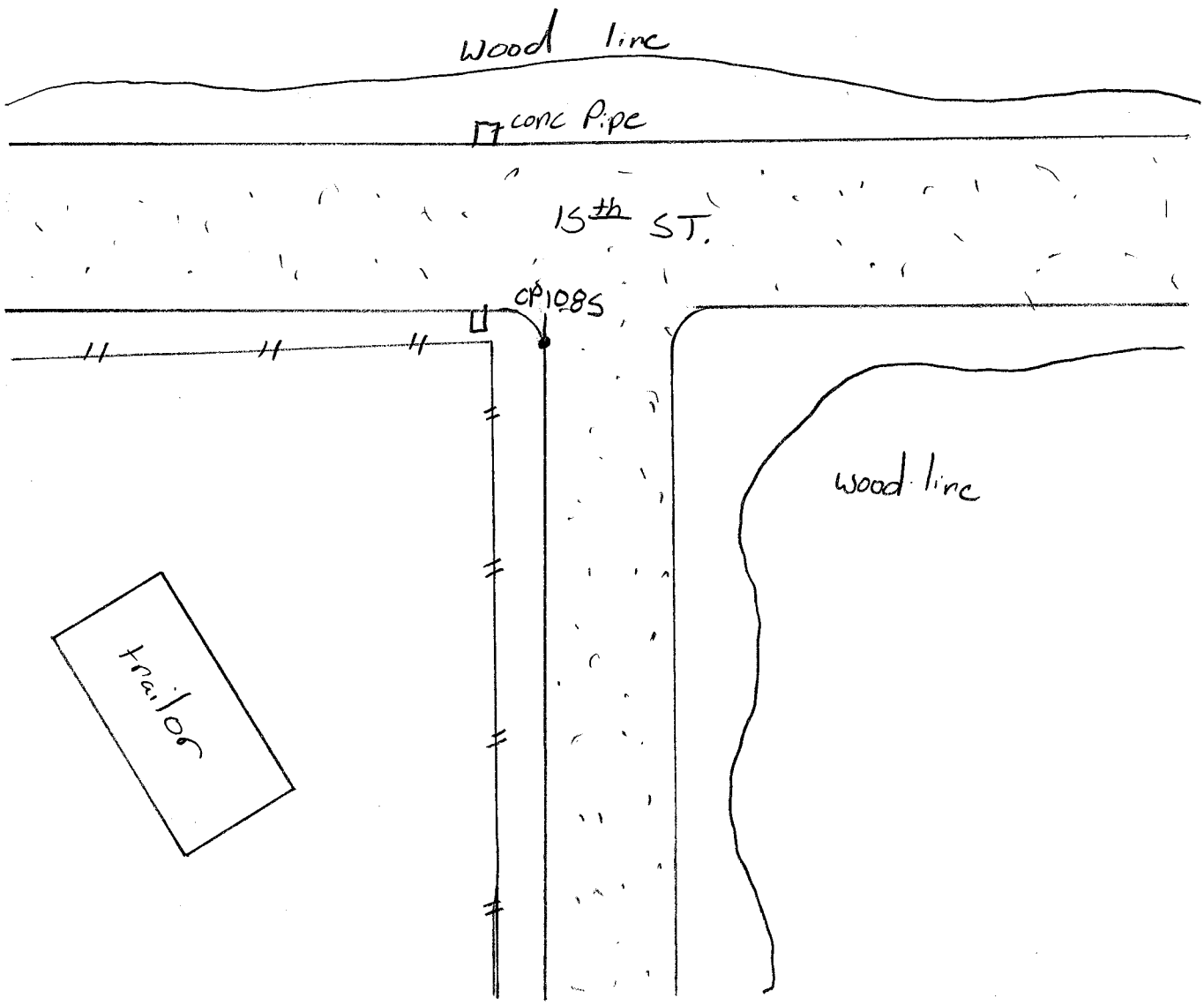
SUBJECT _____

BY _____



CP 1085





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NICEVILLE, FLORIDA 32578
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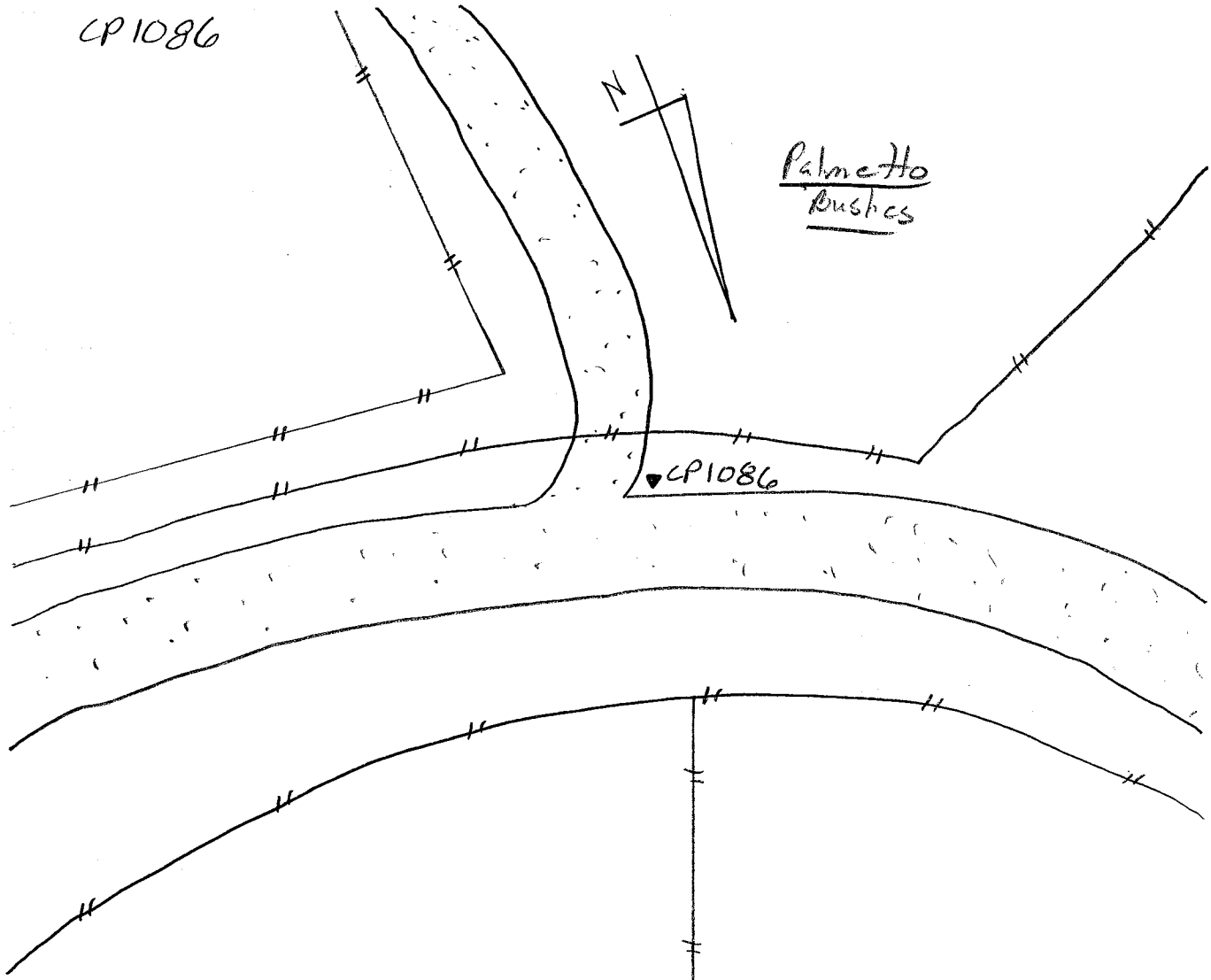
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1086





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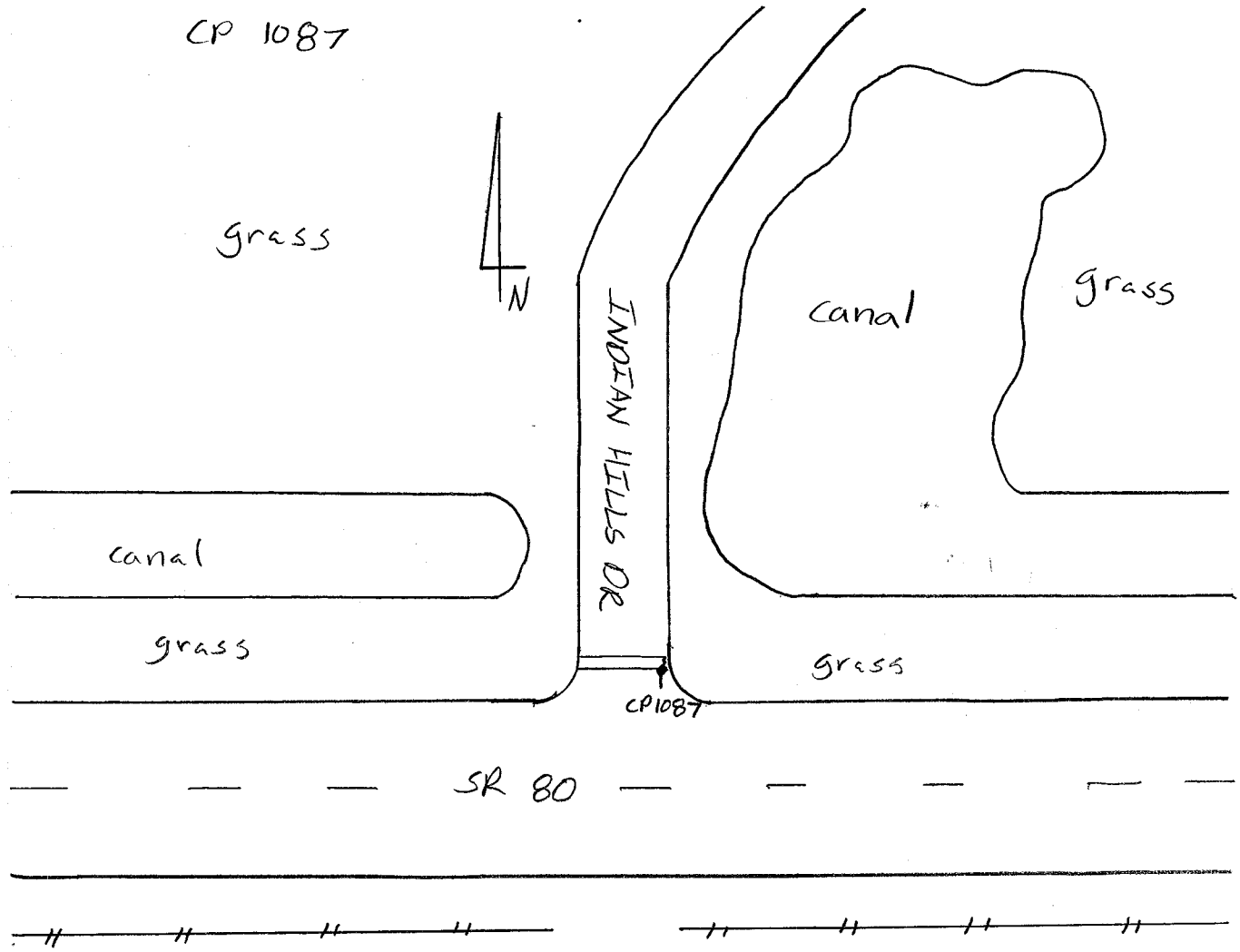
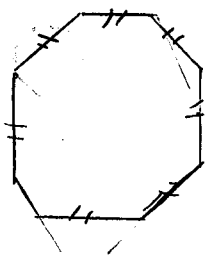
SUBJECT _____ DATE _____

BY _____ JOB NO. _____







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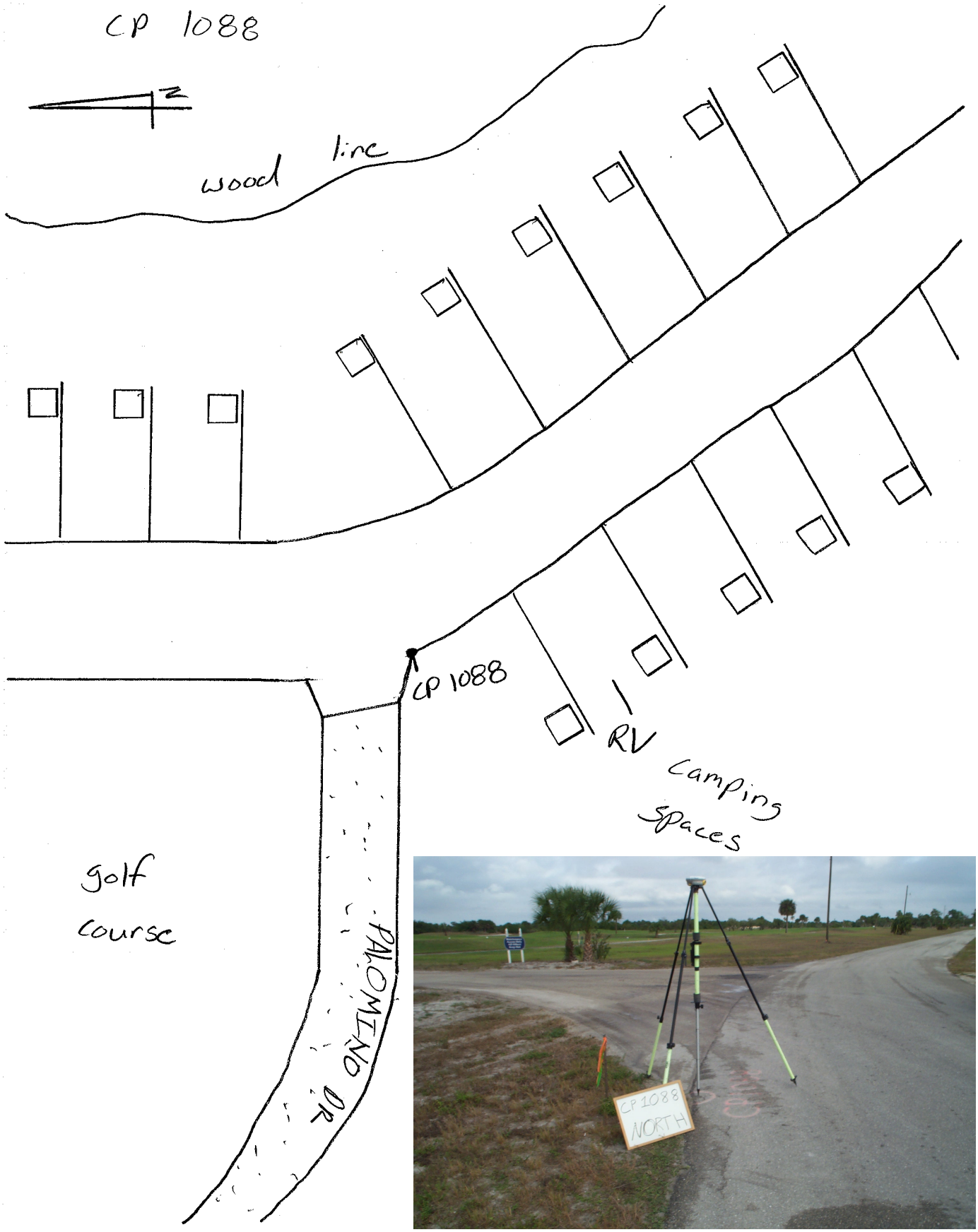

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PROJECT _____

SUBJECT _____

BY _____



CP 1089

PASTURE

DITCH

GRASS / GRAVEL ROAD

DITCH

N

PASTURE

CANAL

CP 1089

PASTURE

PASTURE

GUSTIN, COTHERN & TUCKER, INC.
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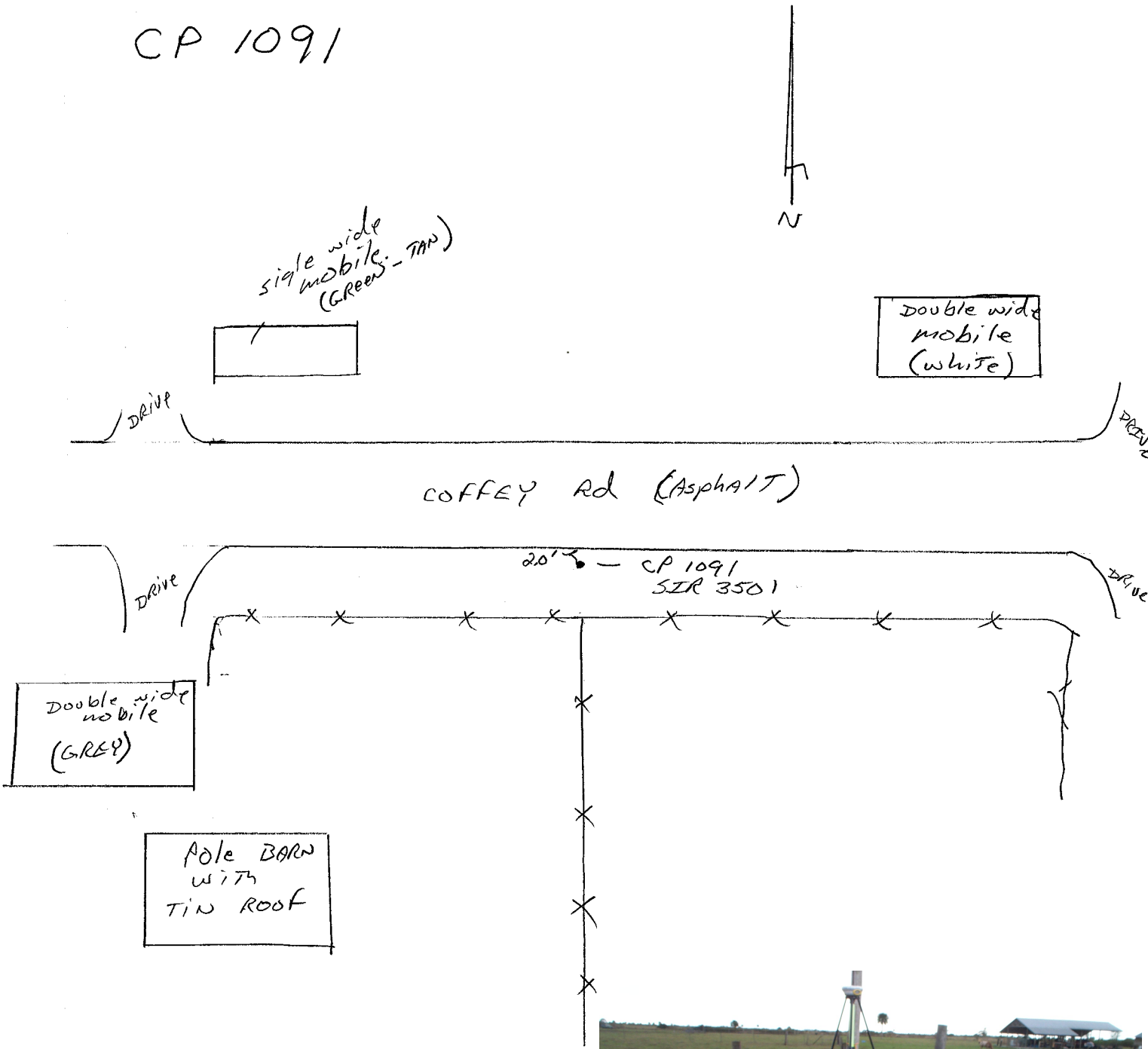
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1091





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NICEVILLE, FLORIDA 32578

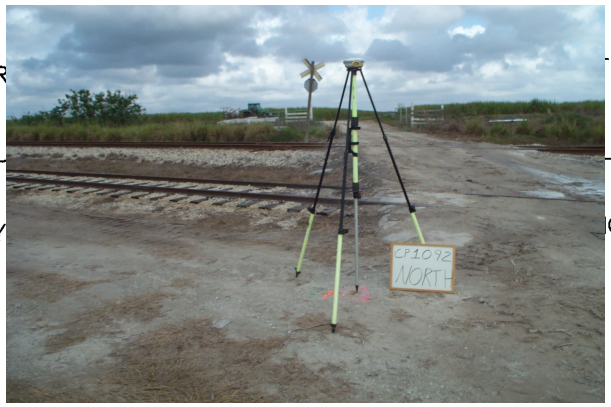
(850) 678-5141

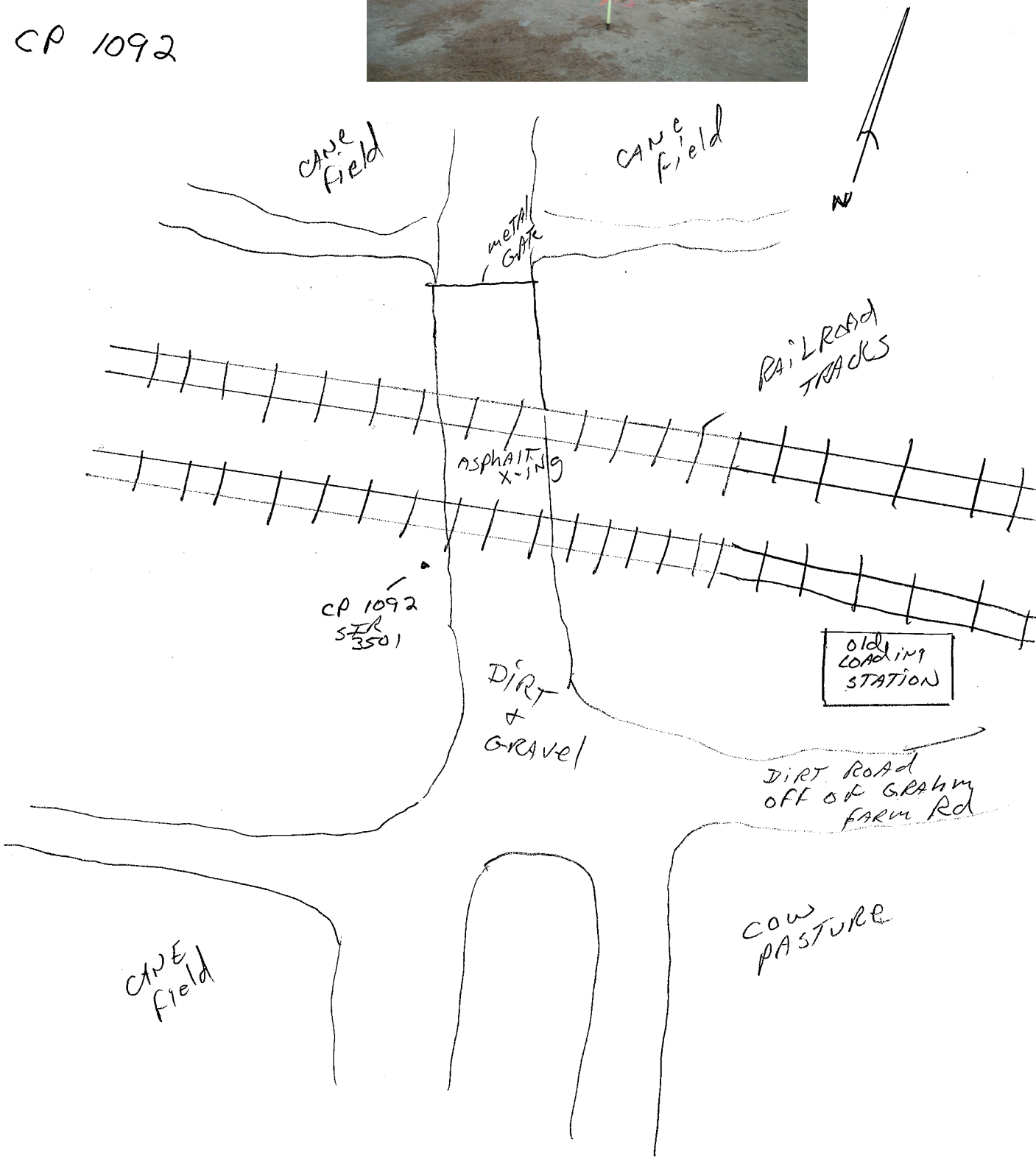
PR _____ OF _____

SU _____

BY _____ O. _____

CP 1092





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ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
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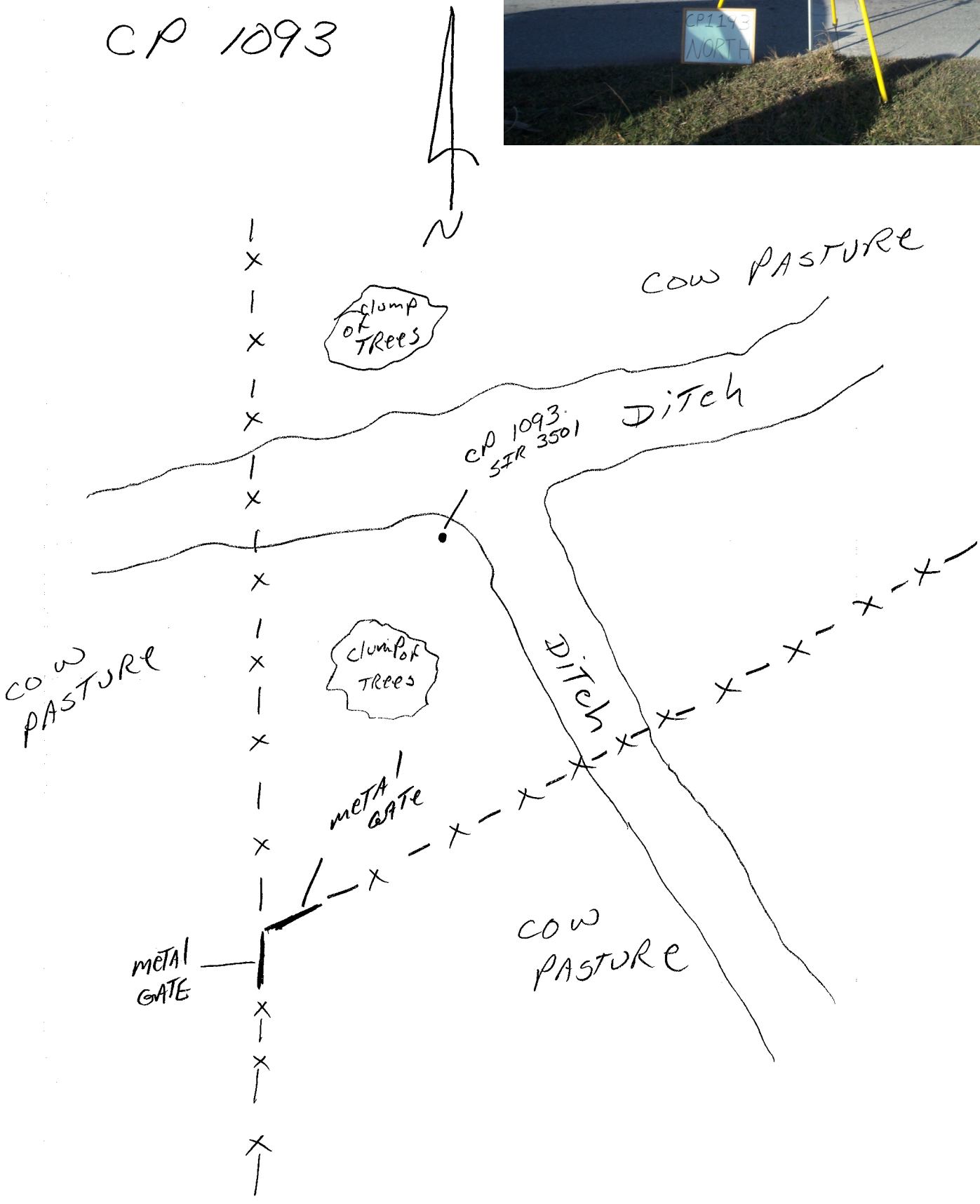
PROJECT ___

SUBJECT ___

BY _____



CP 1093



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NICEVILLE, FLORIDA 32578
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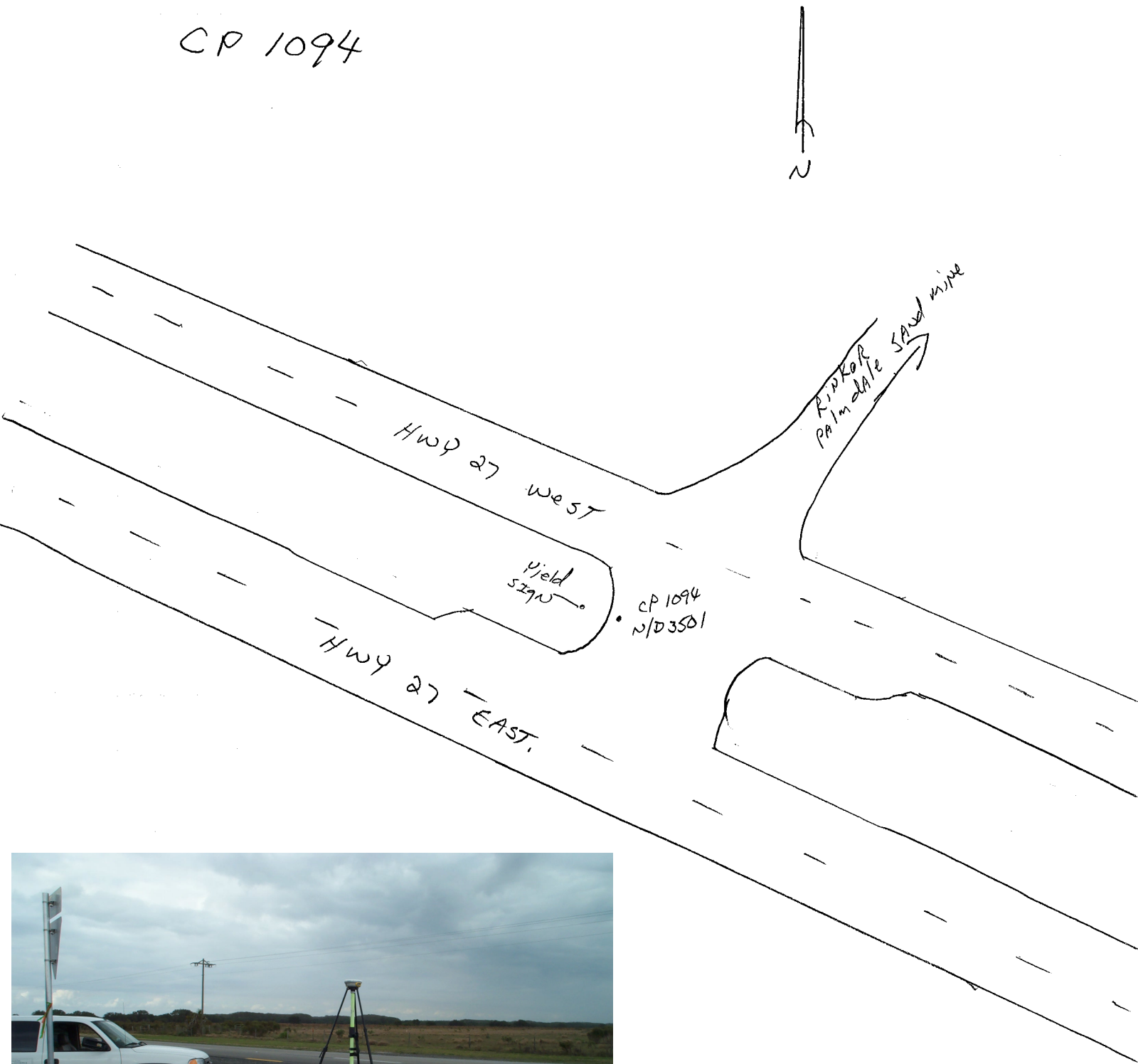
PROJECT _____ SHEET ____ OF ____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1094



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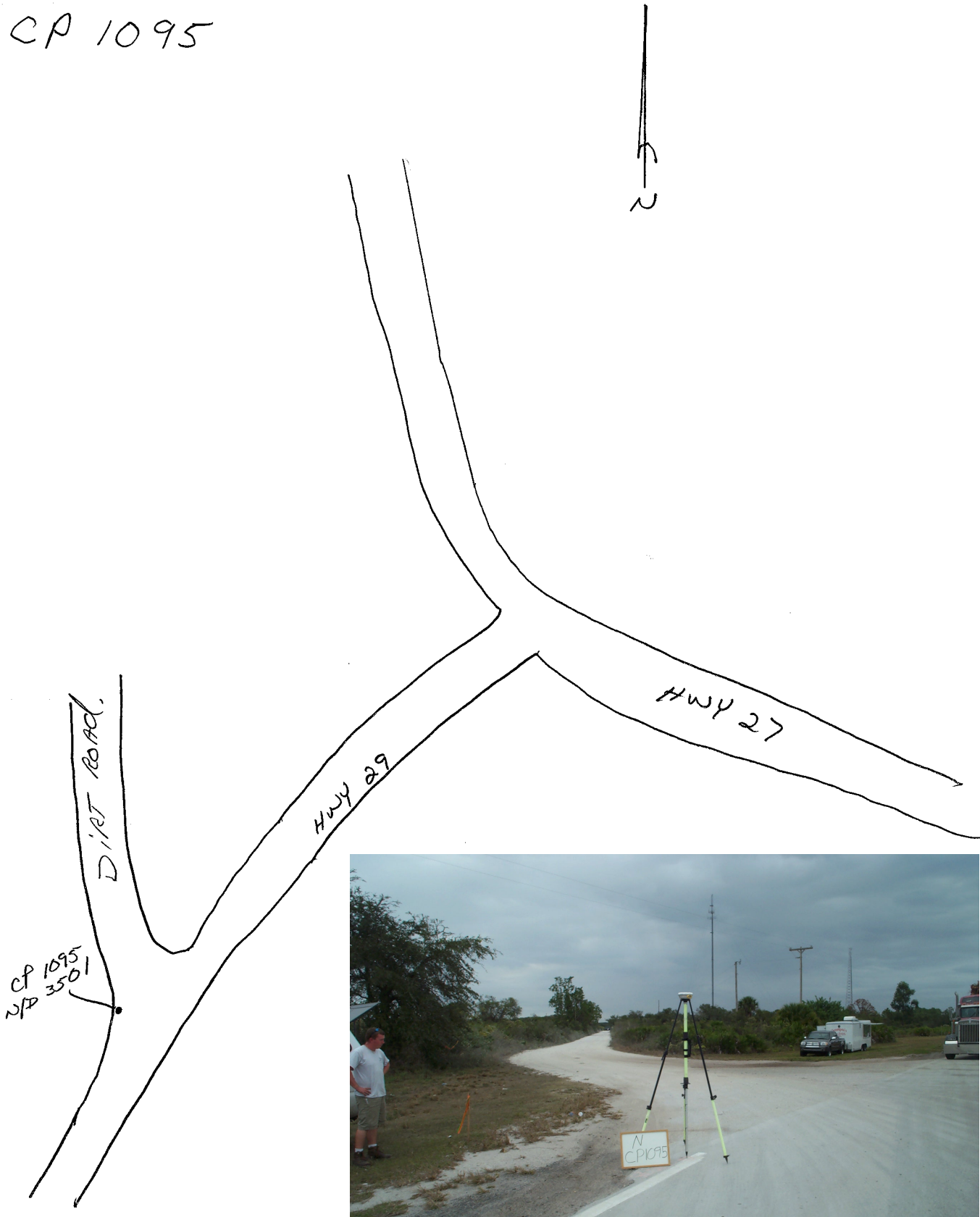
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1095



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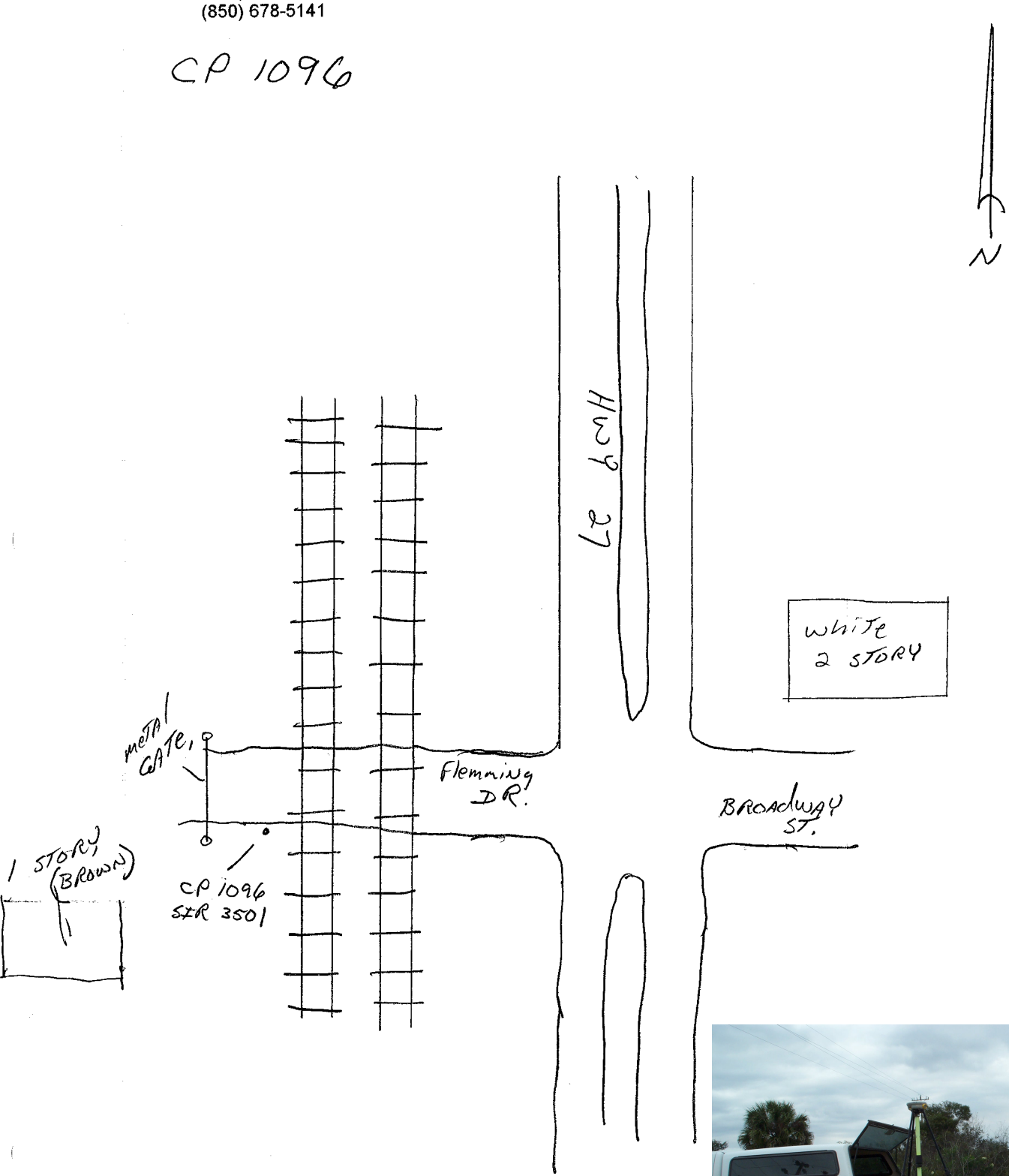
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1096





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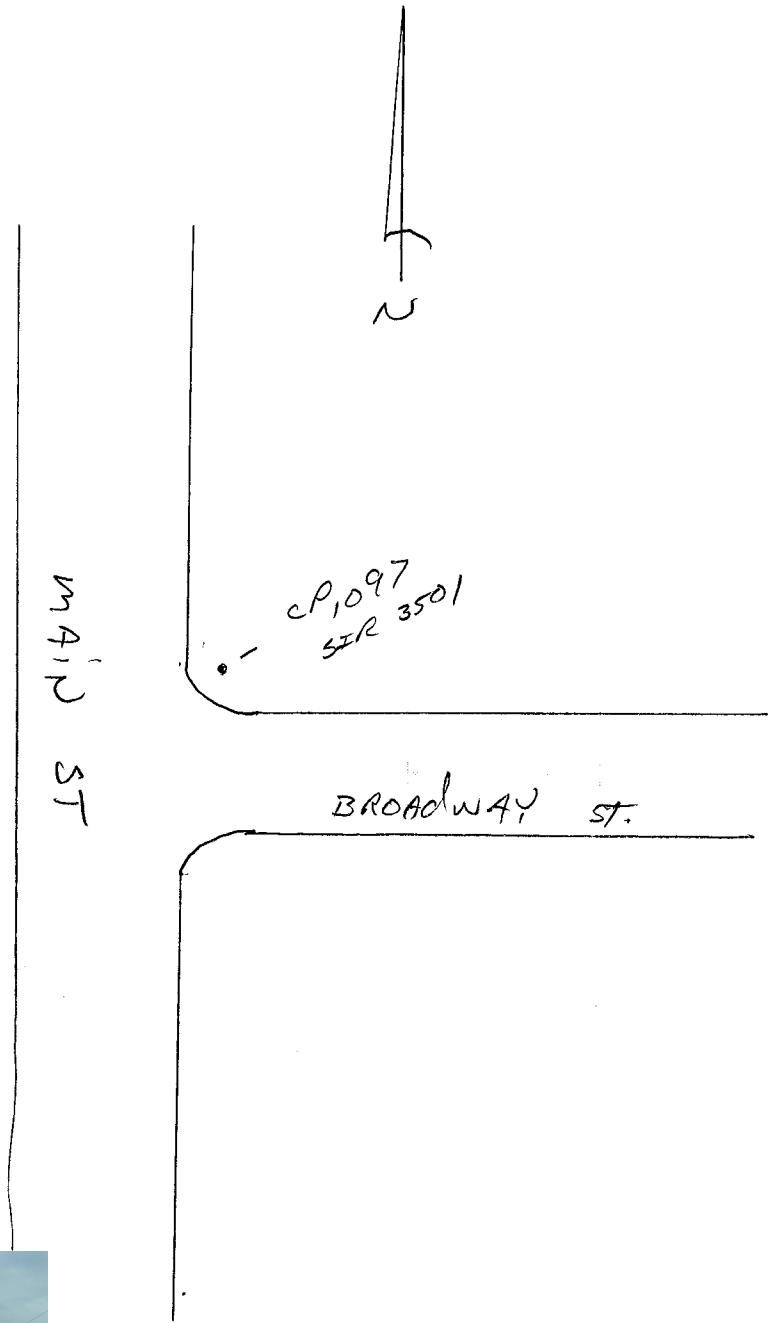
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1097





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(850) 678-5141

PROJECT

SUBJECT

BY



CP 1098

N

TREES

DITCH

PASTURE

GRASS

DITCH

METAL GATE

GRAVEL/DIRT ROAD

GRASS TRAIL

DITCH

BARBED WIRE FENCE

PASTURE

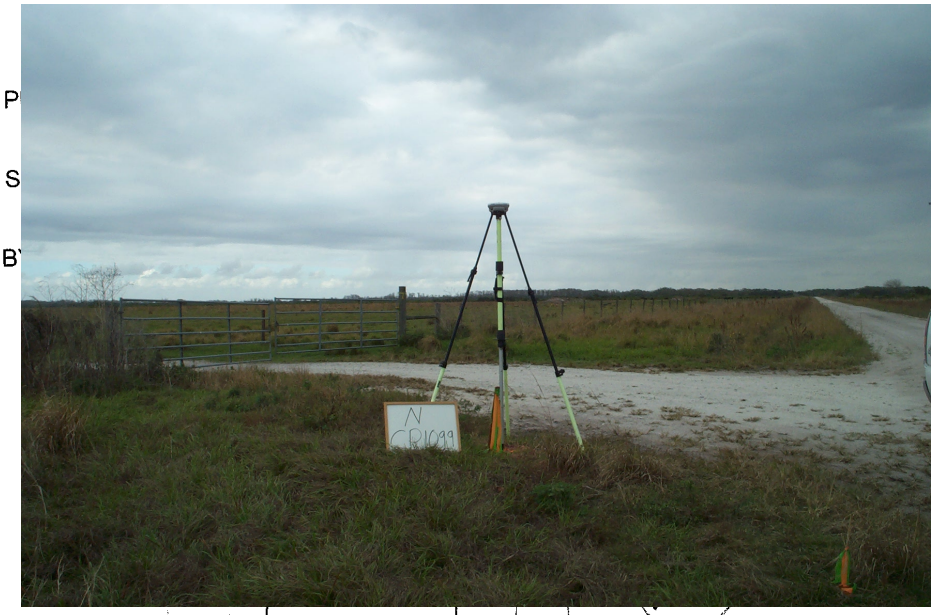
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

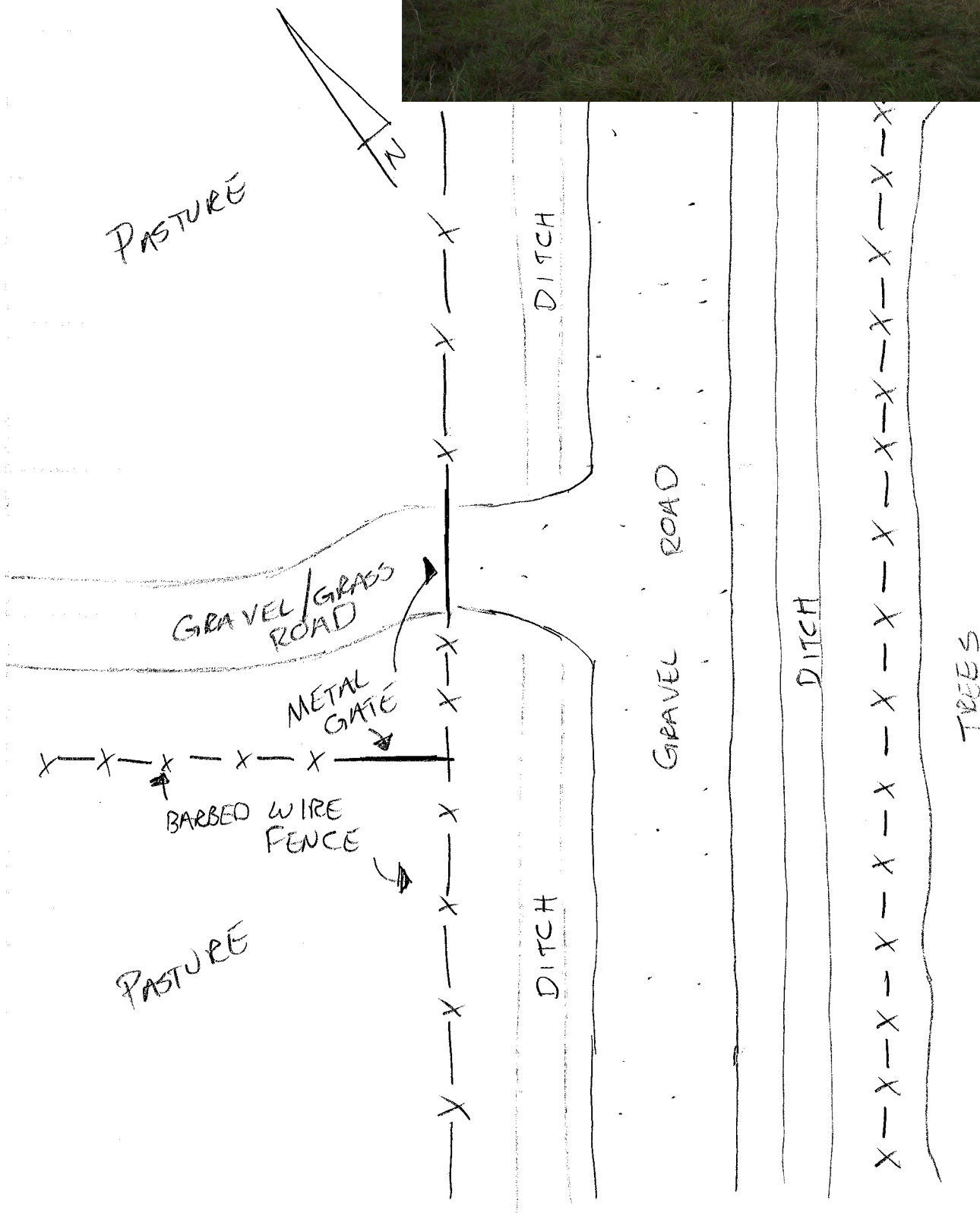
P

S

B

CP 1099





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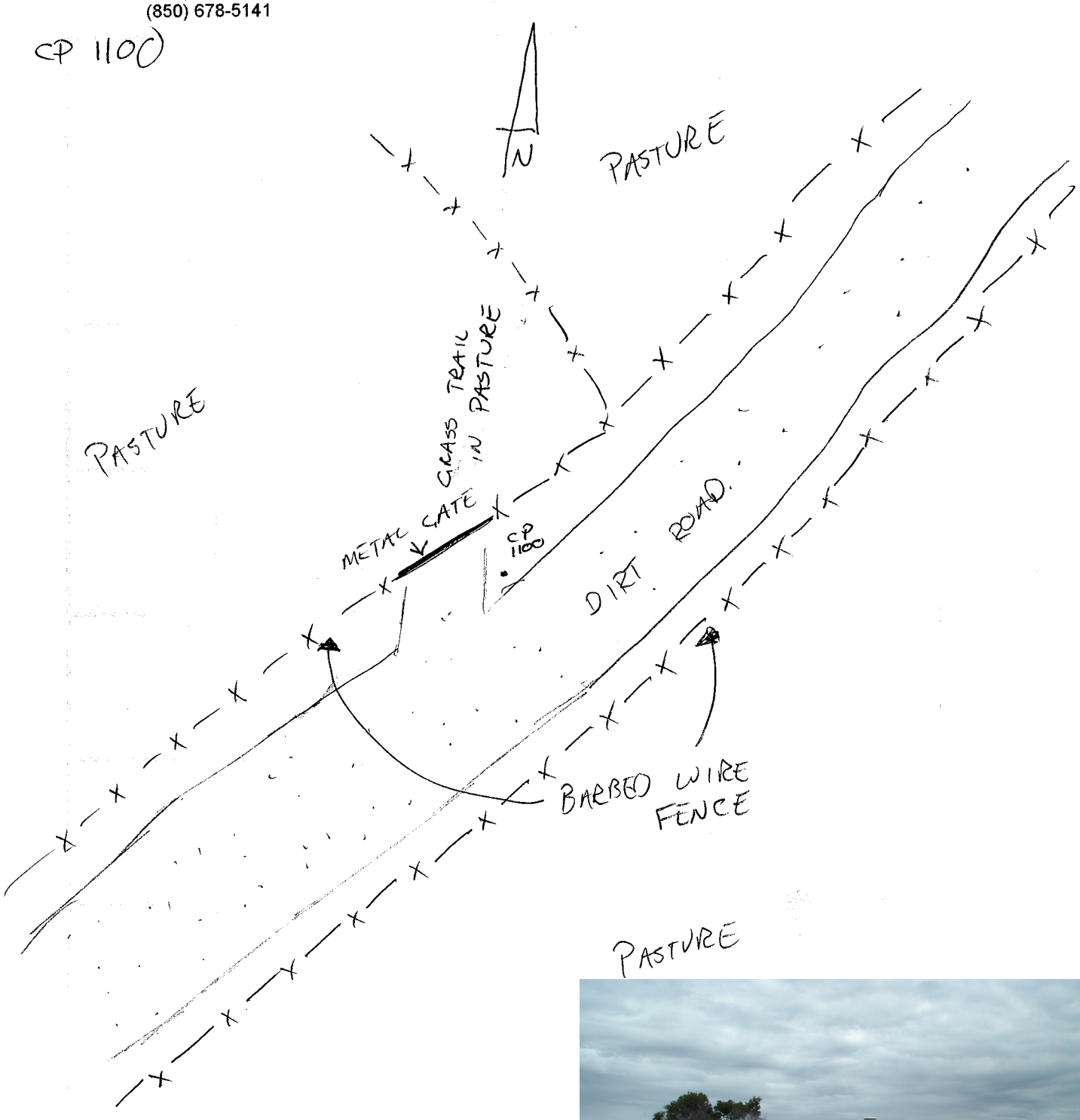
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1100





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NICEVILLE, FLORIDA 32578
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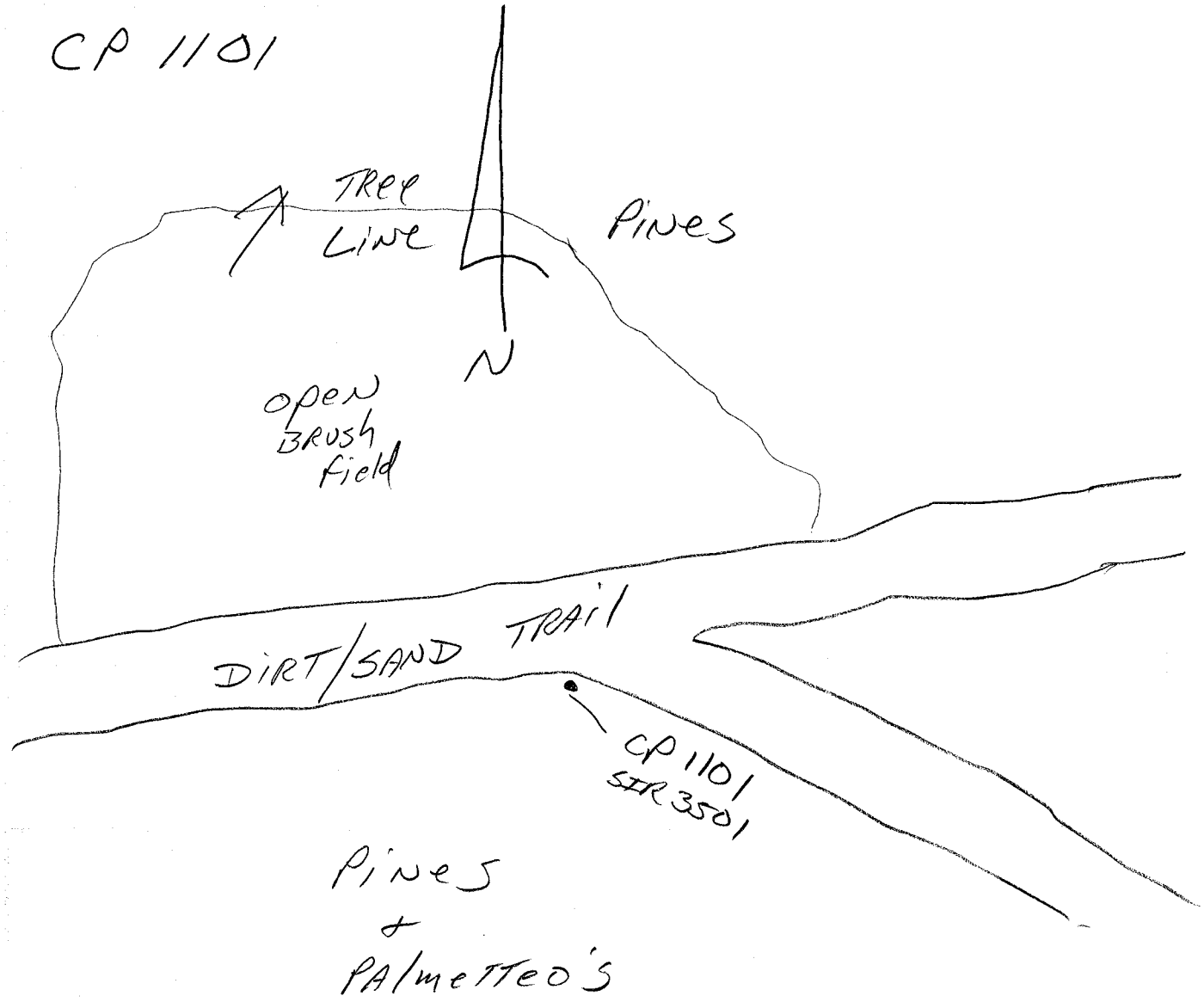

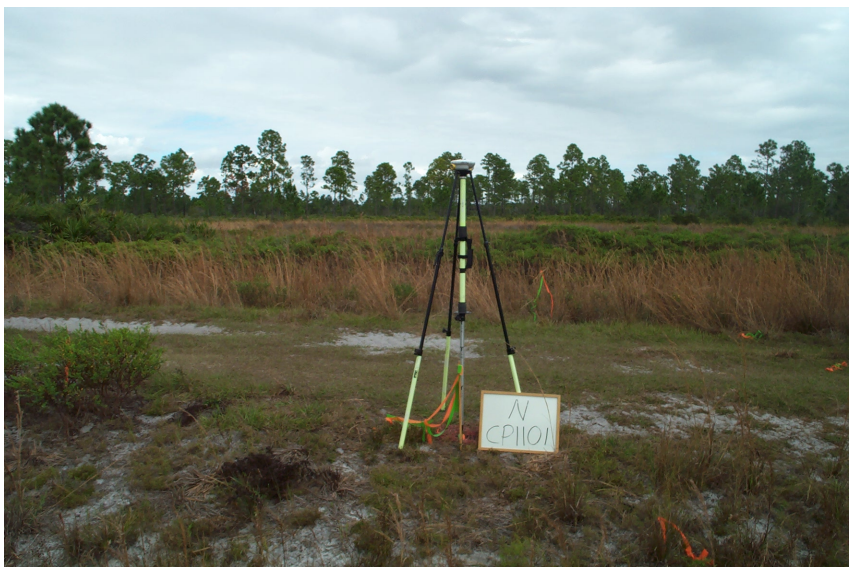

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ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

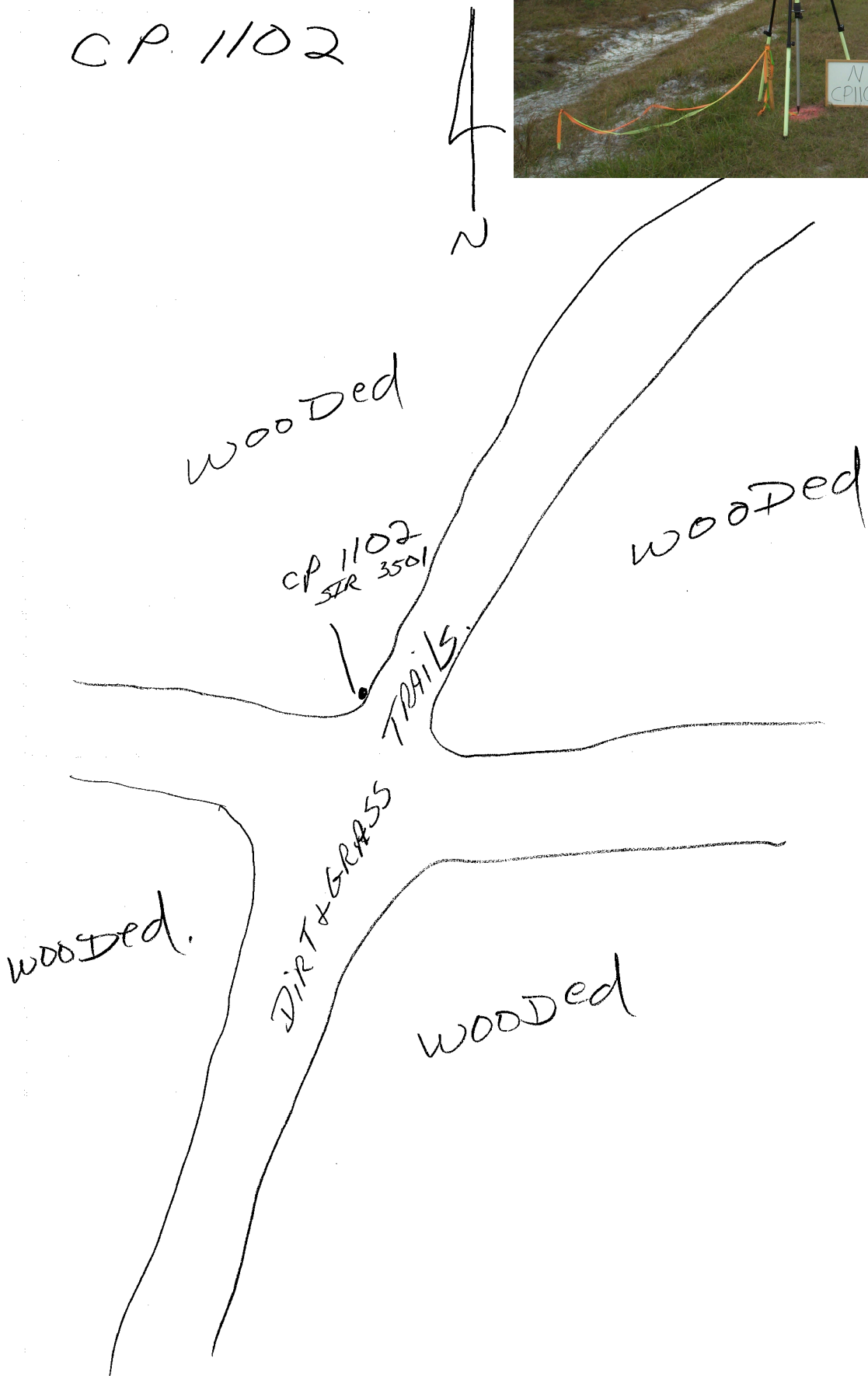
PROJECT _____

SUBJECT _____

BY _____

CP 1102





GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJ

SUBJ

BY



CP 1103



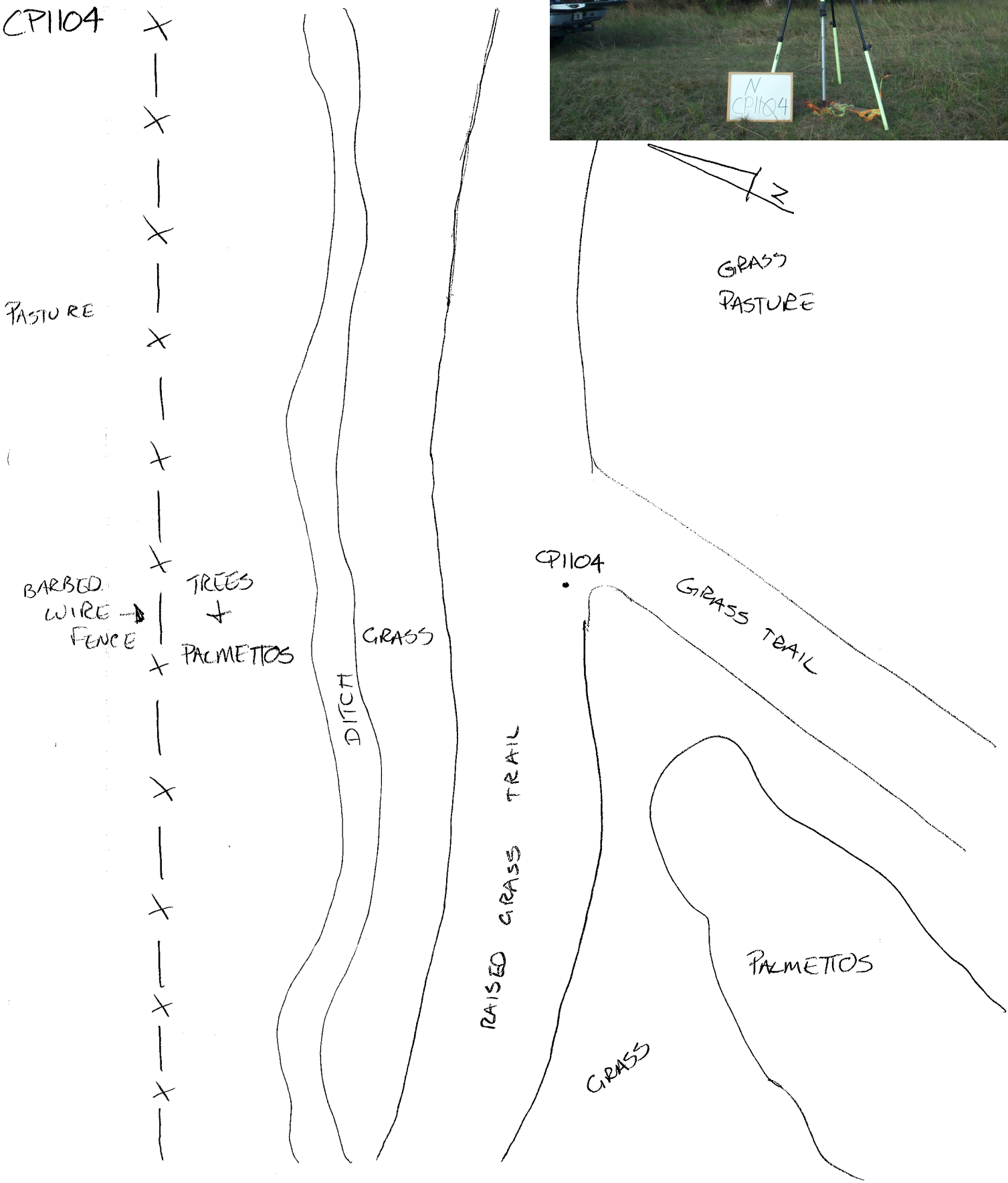
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT

SUBJECT

BY





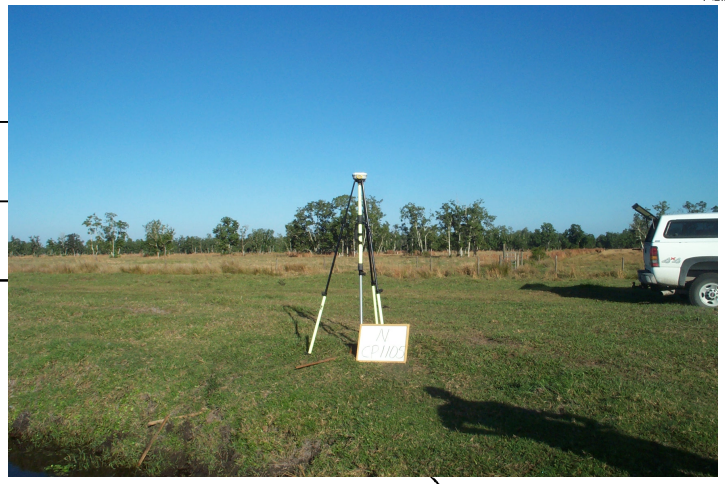
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

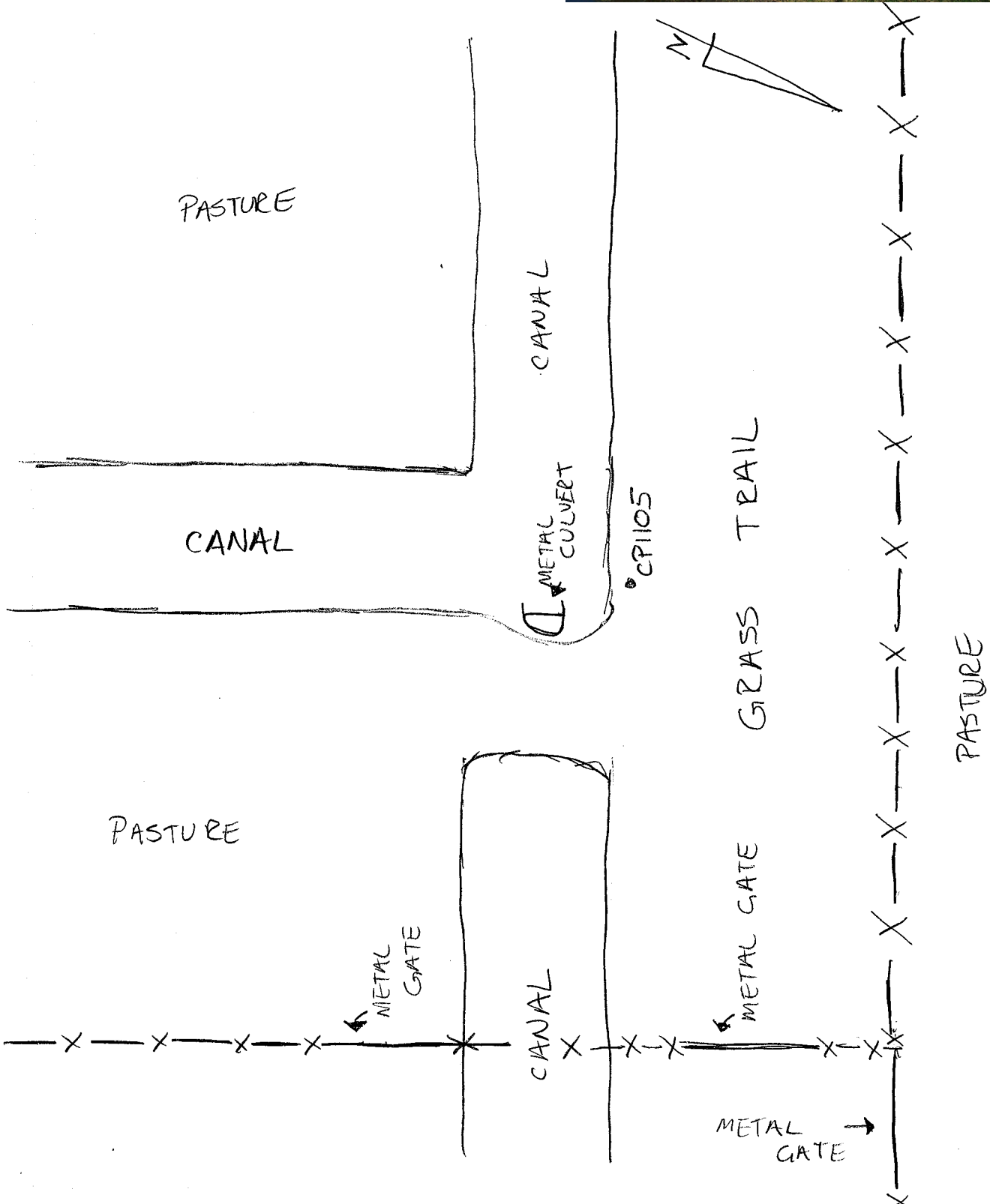
PROJECT _____

SUBJECT _____

BY _____

CP1105





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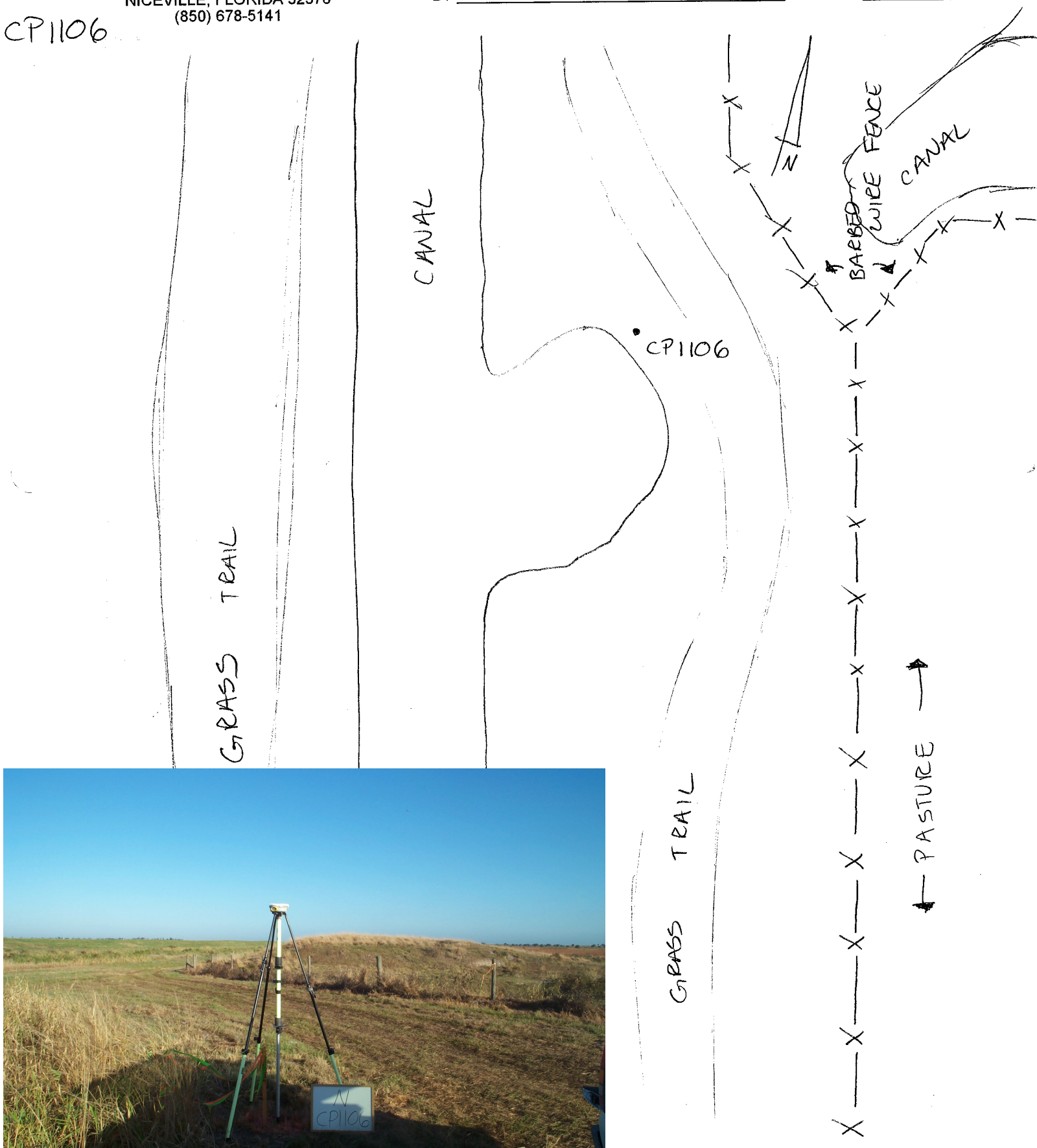
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP1106



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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP1107

DITCH

RAISED GRASS TRAIL

GRASS

CANAL

RAISED GRASS TRAIL

GRASS

METAL GATE

METAL GATE

DIRT ROAD

CONCRETE BRIDGE

DIRT ROAD

METAL GATE

METAL GATE

BARBED WIRE FENCE

CANAL

DITCH

RAISED GRASS TRAIL

RAISED GRASS TRAIL

GRASS

PASTURE



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NICEVILLE, FLORIDA 32578
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PROJECT _____

SUBJECT _____

BY _____



CP 1108

N

orange grove

Canal

orange grove

Bull Head RD

CP 1108

orange grove

Canal

Orange grove

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NICEVILLE, FLORIDA 32578
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PROJECT _____

SUBJECT _____

BY _____

CP 1109

PASTURE

RAISED GRAVEL RD.

GRASS

GRAVEL ROAD

GRASS

METAL PIPE

CANAL

PASTURE

RAISED GRAVEL RD

GRASS

GRAVEL ROAD

GRASS

CP 1109

GRASS

GRAVEL ROAD

GRASS

METAL PIPE

CANAL

RAISED GRAVEL RD

PASTURE

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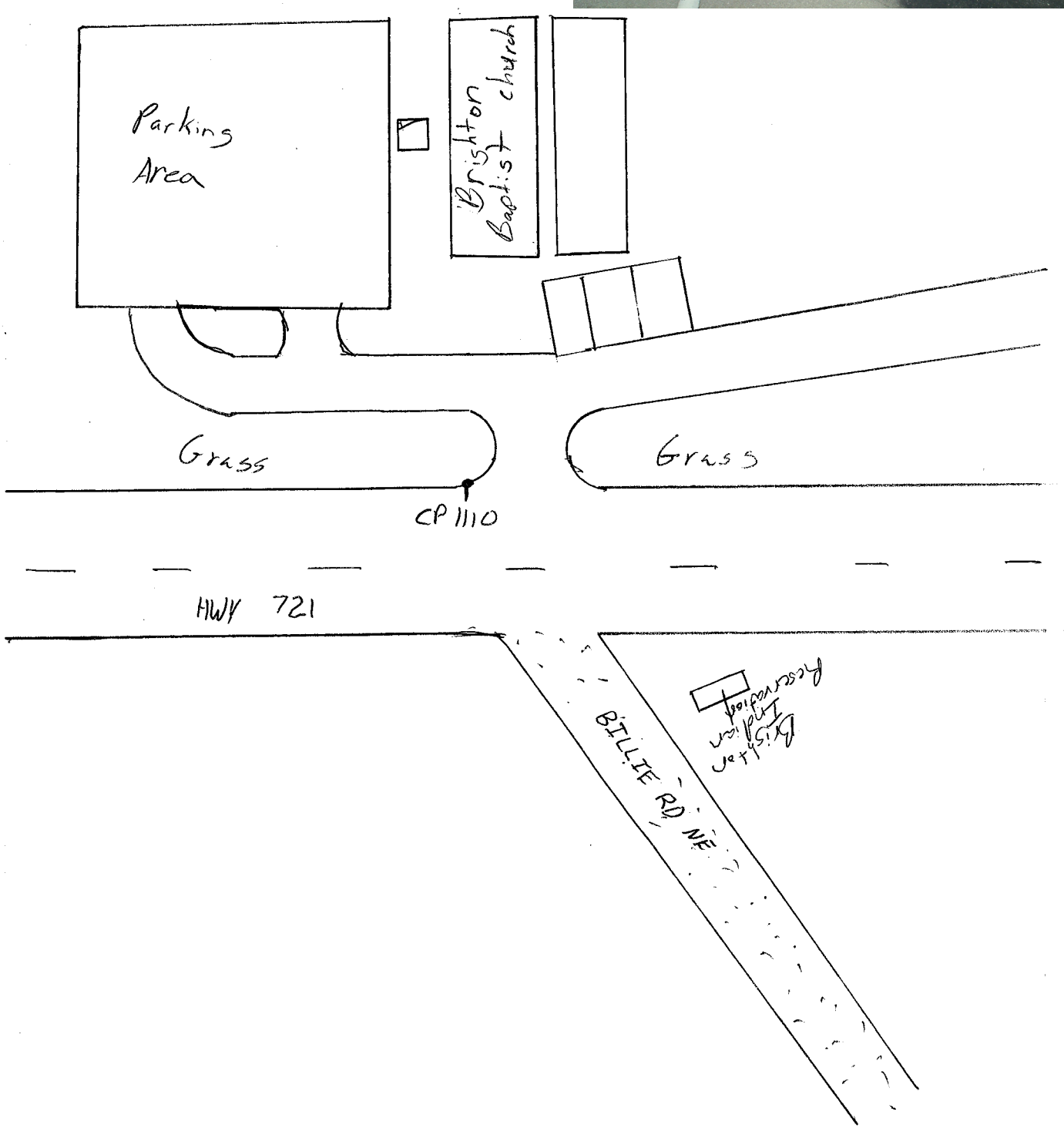
PROJECT _____

SUBJECT _____

BY _____



CP 1110



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PROJECT _____

SUBJECT _____

BY _____



CP 1111

N

canal

canal

Frank Shore RD

CP 1111

Electrical Box

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

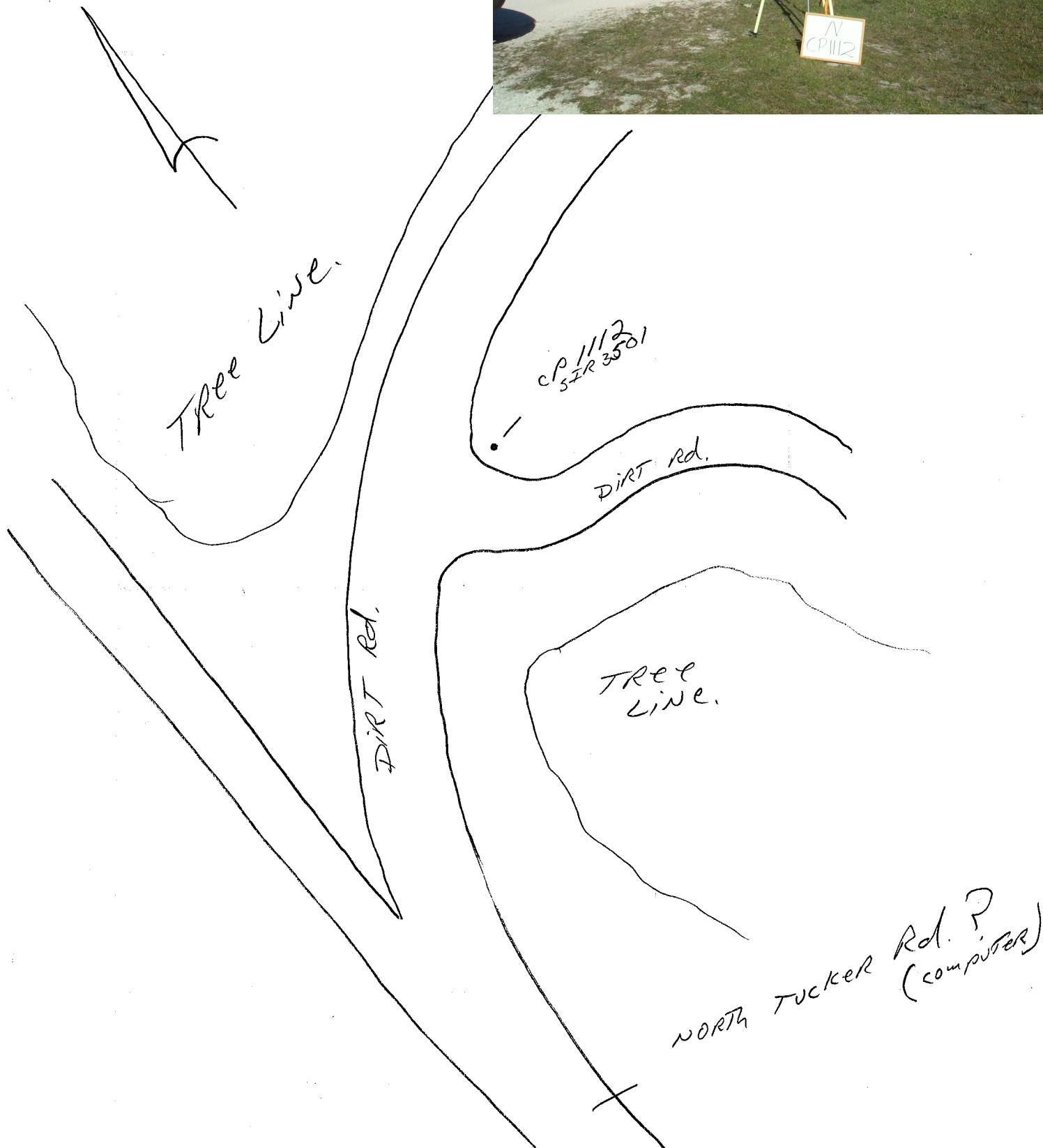
PR

SU

BY



CP 1112



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NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____

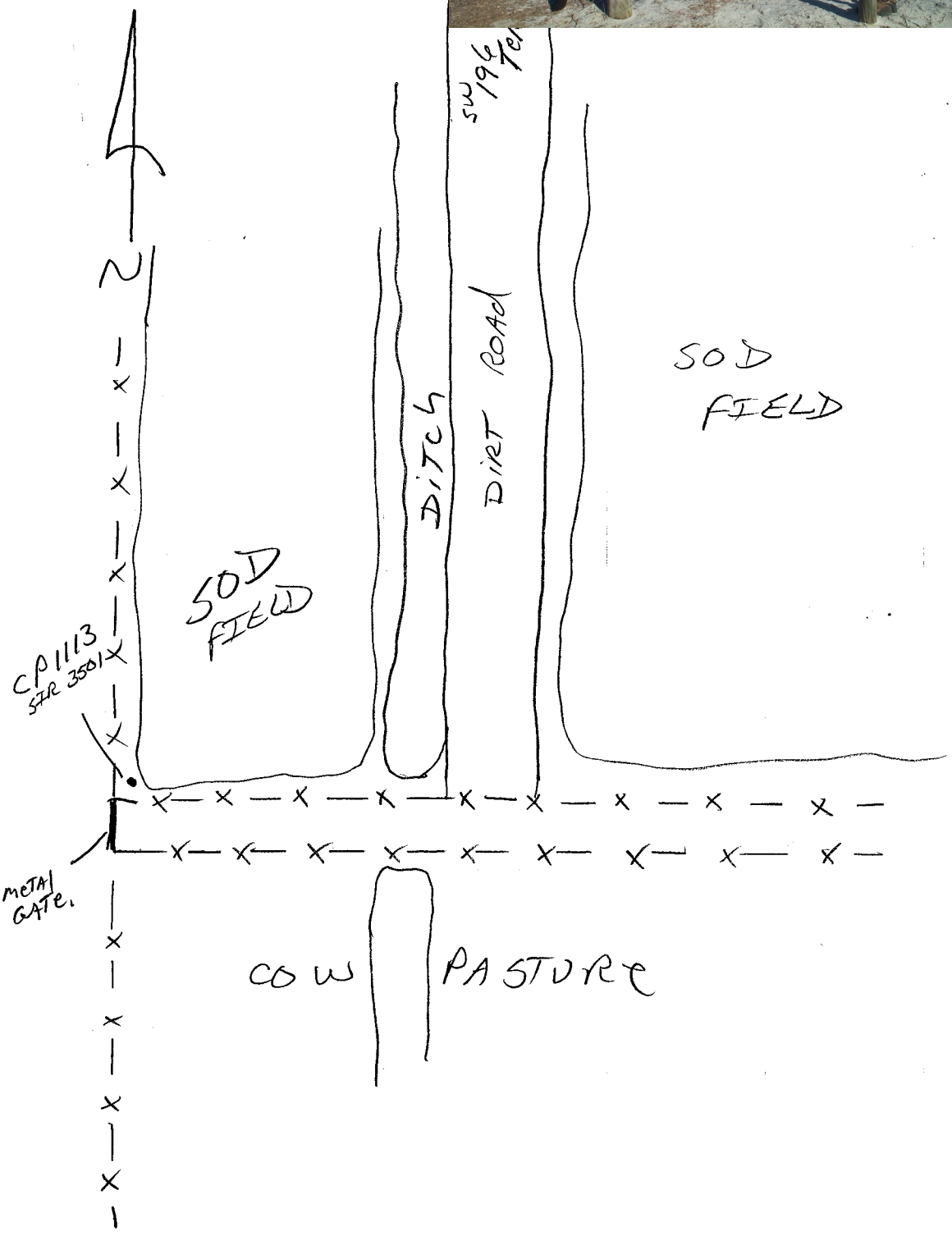
SUBJECT _____

BY _____

HWY 20



CP 1113



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ENGINEERS / PLANNERS / SURVEYORS

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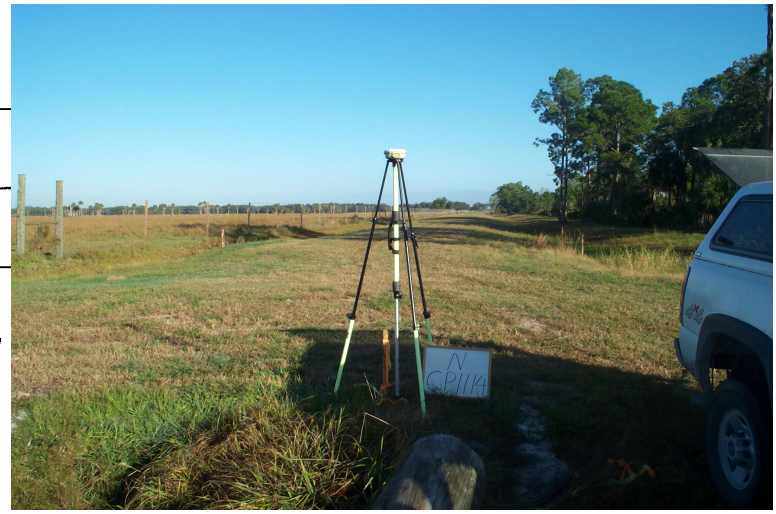
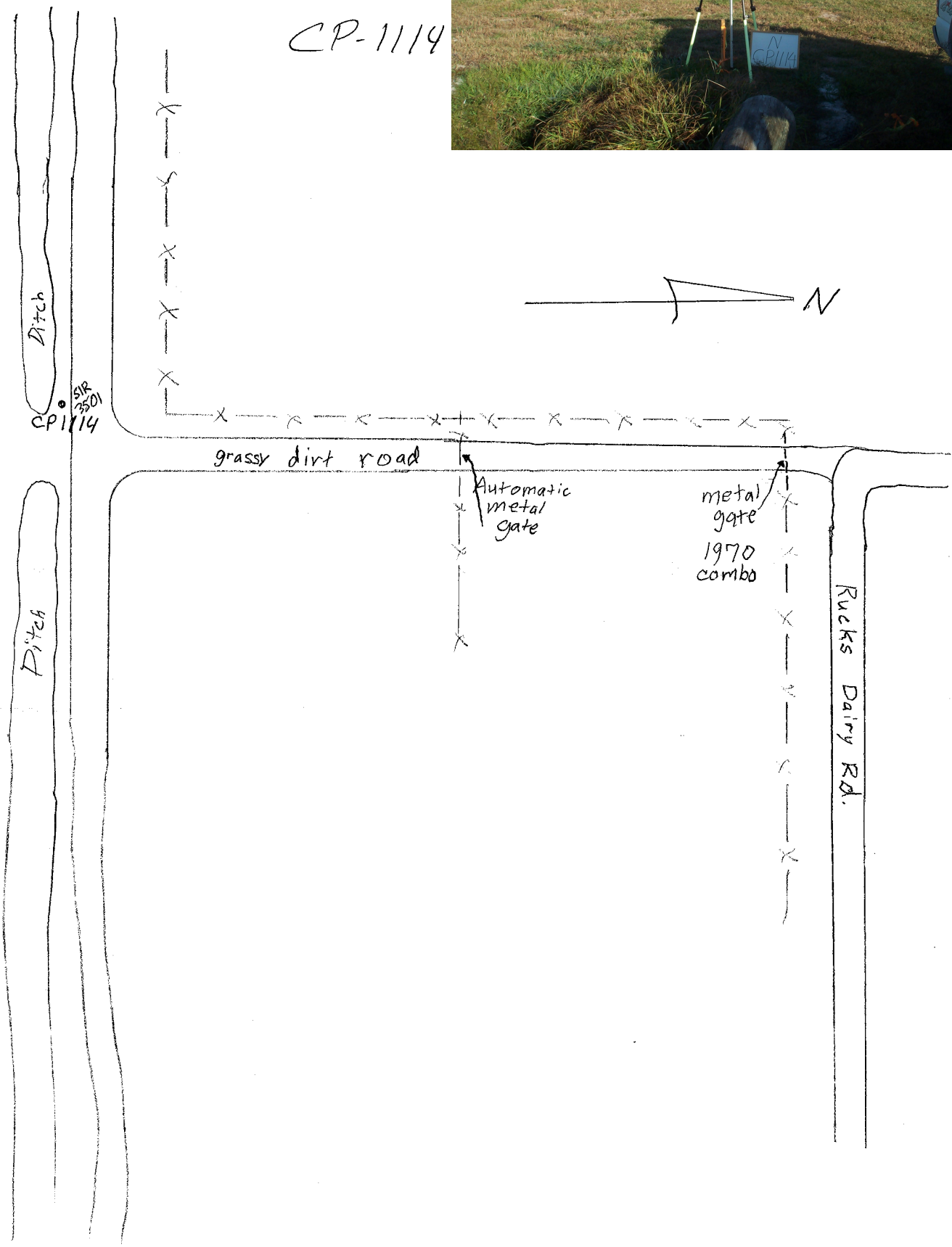
PROJECT ___

SUBJECT ___

BY _____



CP-1114



GUSTIN, COTHERN & TUCKER, INC.
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NICEVILLE, FLORIDA 32578
(850) 678-5141

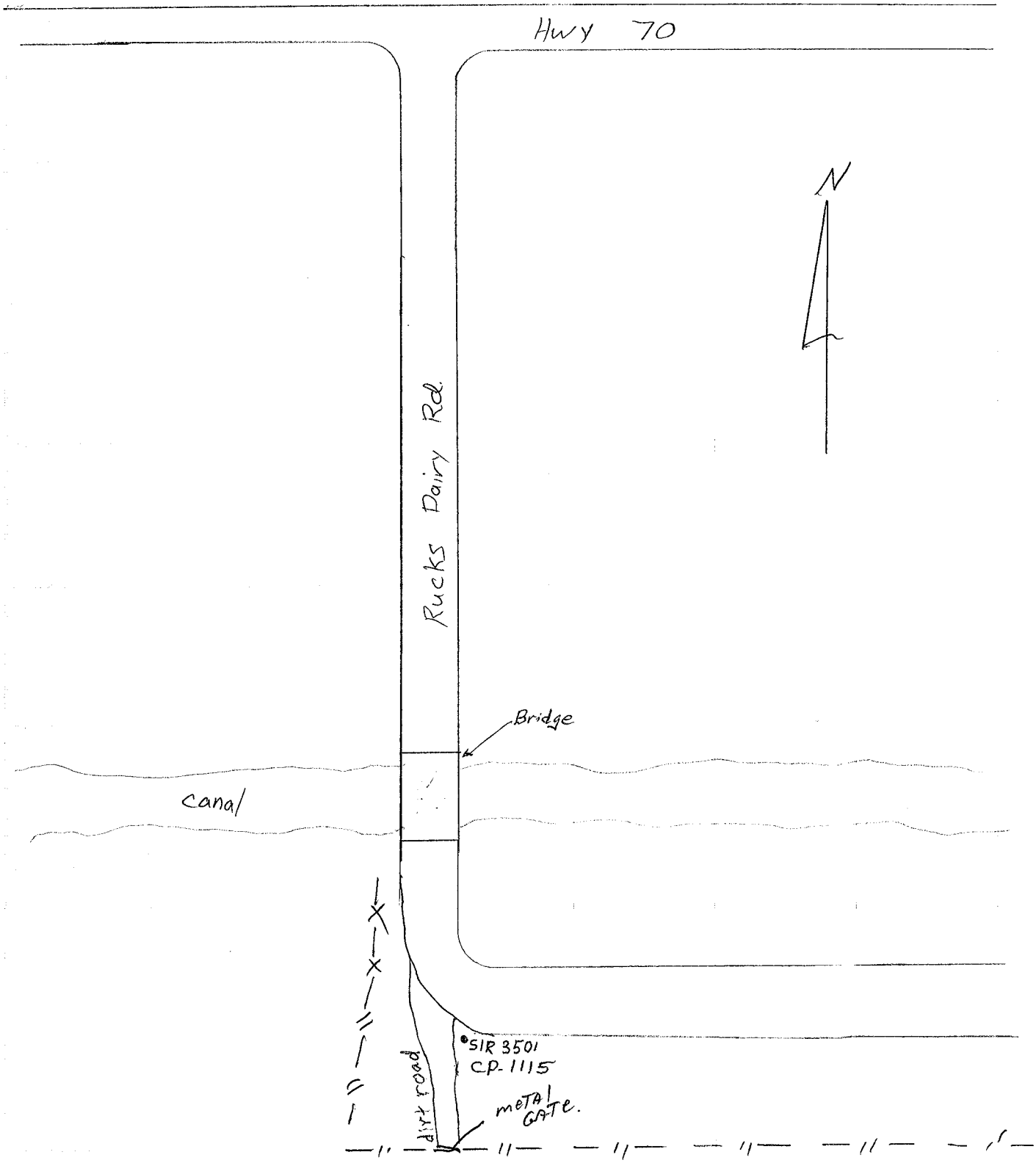
PROJECT _____

SUBJECT _____

BY _____

CP 1115





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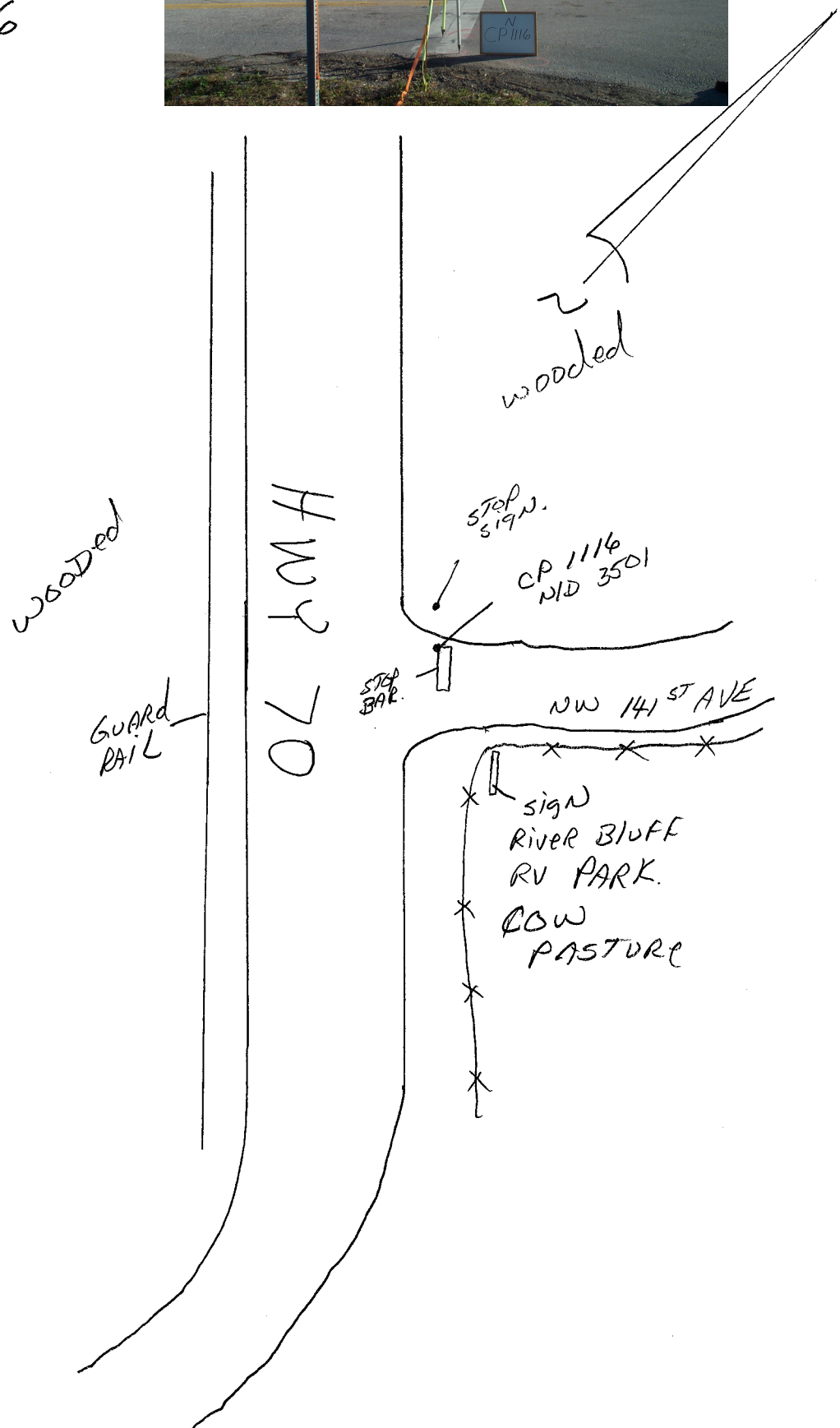
CP 1116



____ OF ____



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PROJECT ___

SUBJECT ___

BY ___



N

CP-1117

Radio Tower

Pole Barn
Tin roof

Metal Gate

dirt road

SIR 3501

CP1117

Hwy 70

Hog wire Fence

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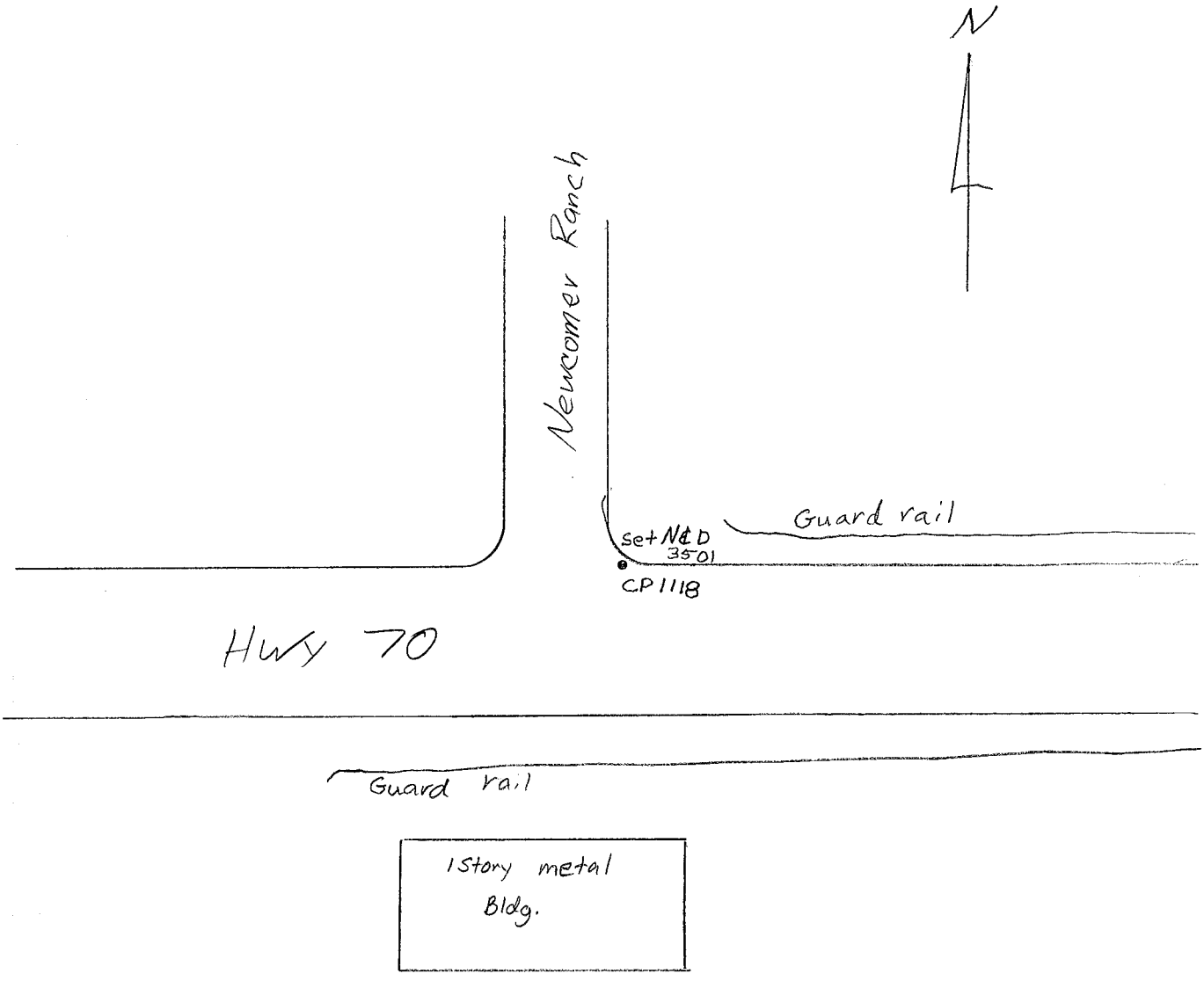
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP-1118





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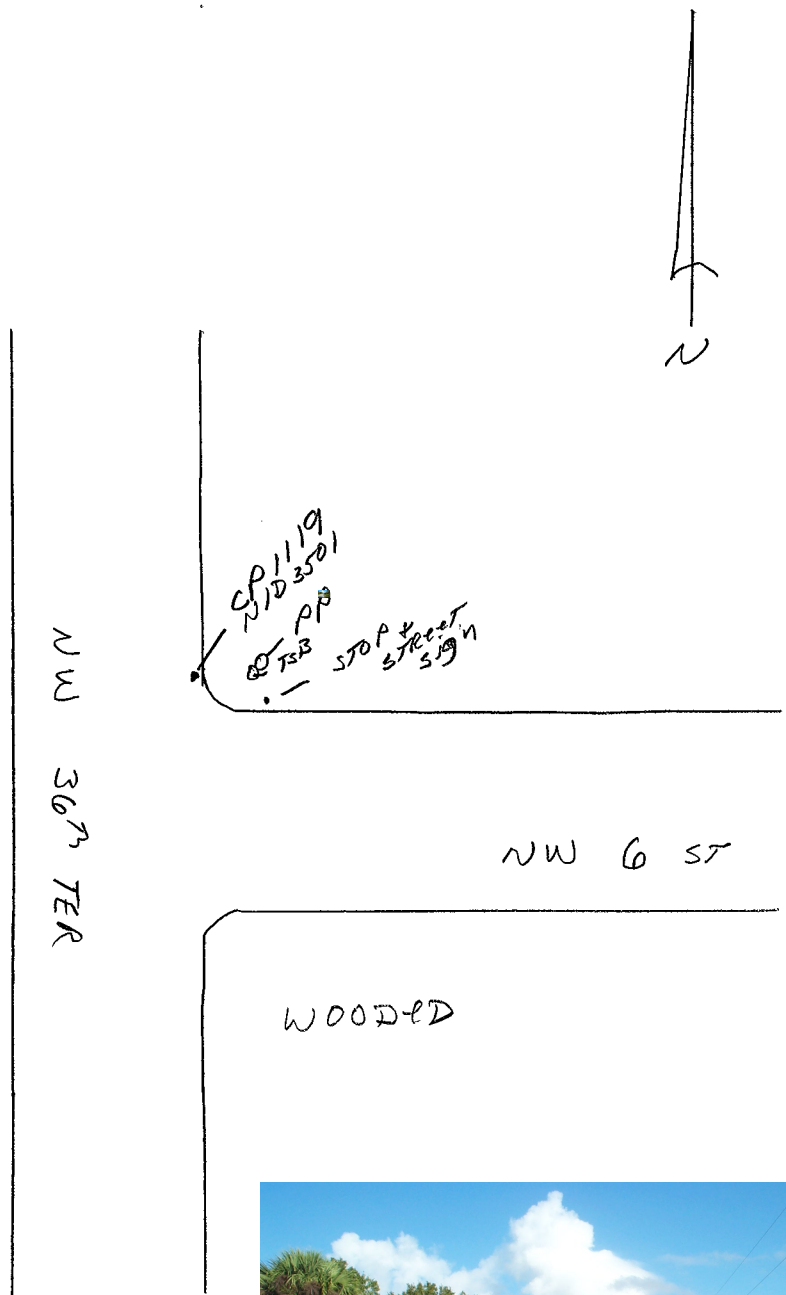
BY _____ JOB NO. _____

CP 1119





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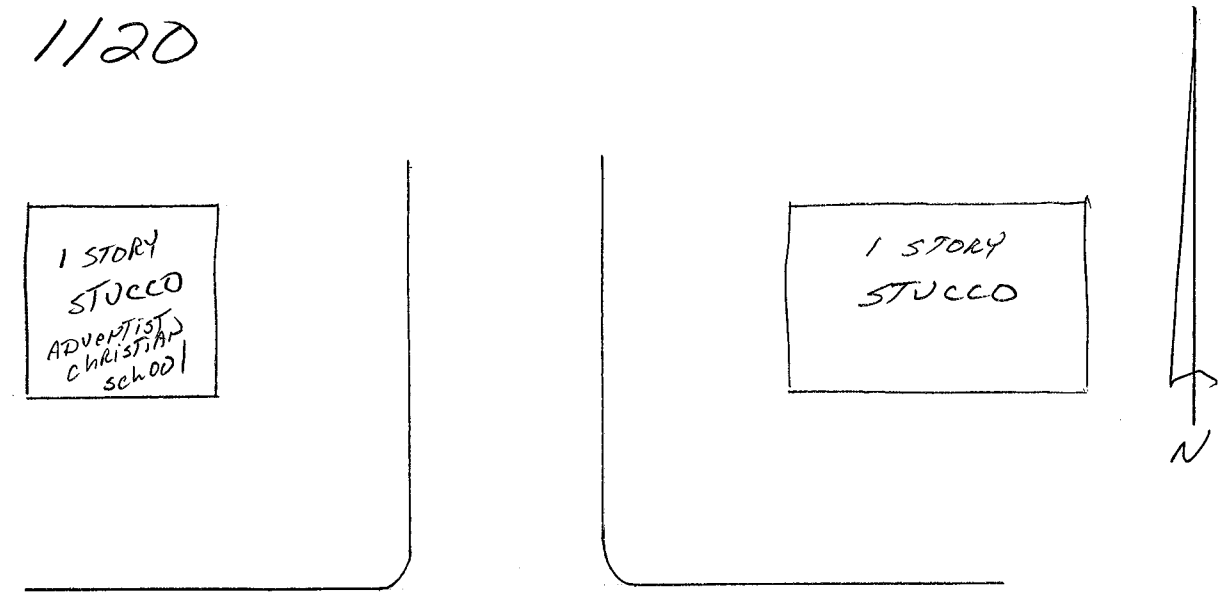
CP 1120





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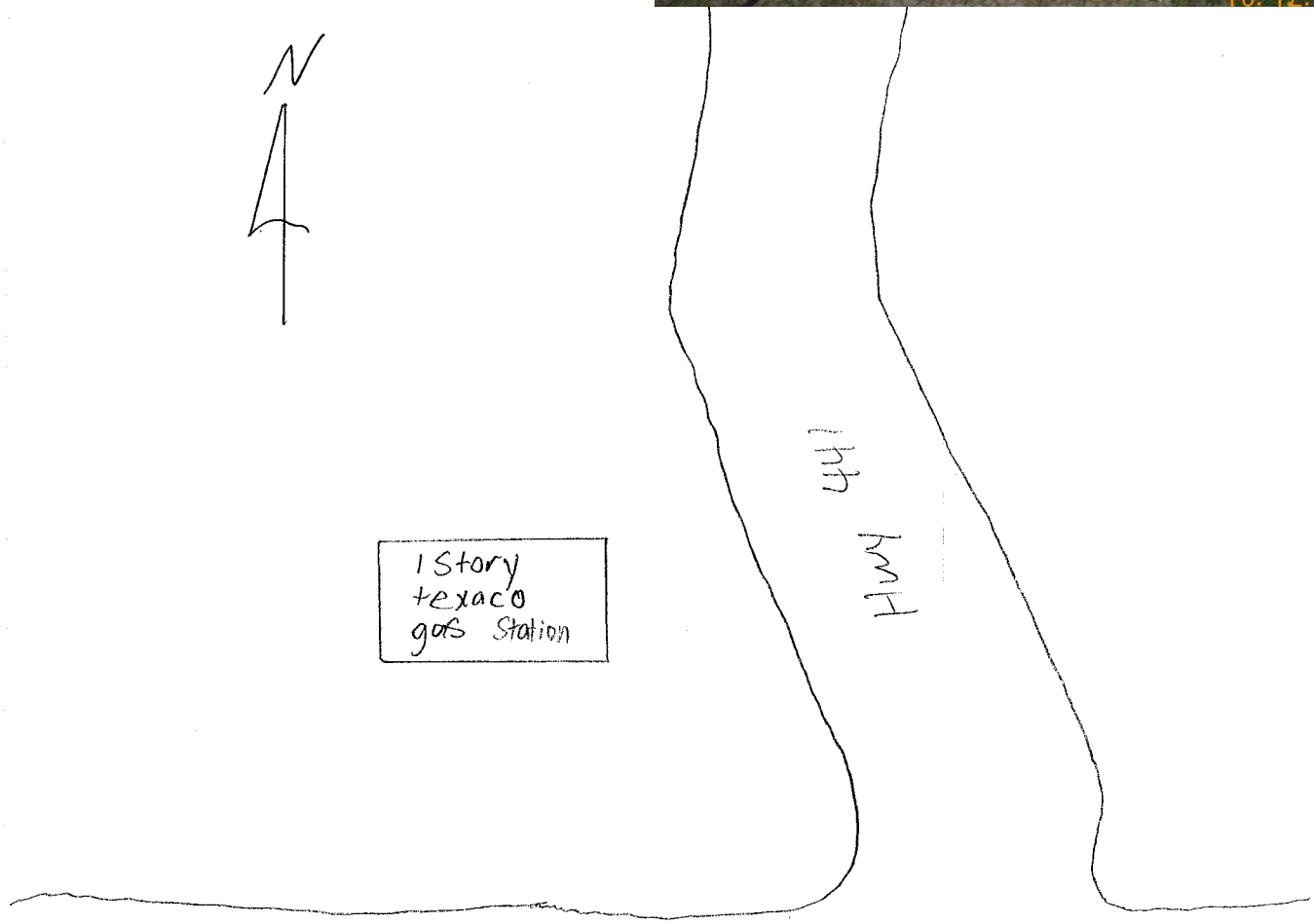
PROJECT _____

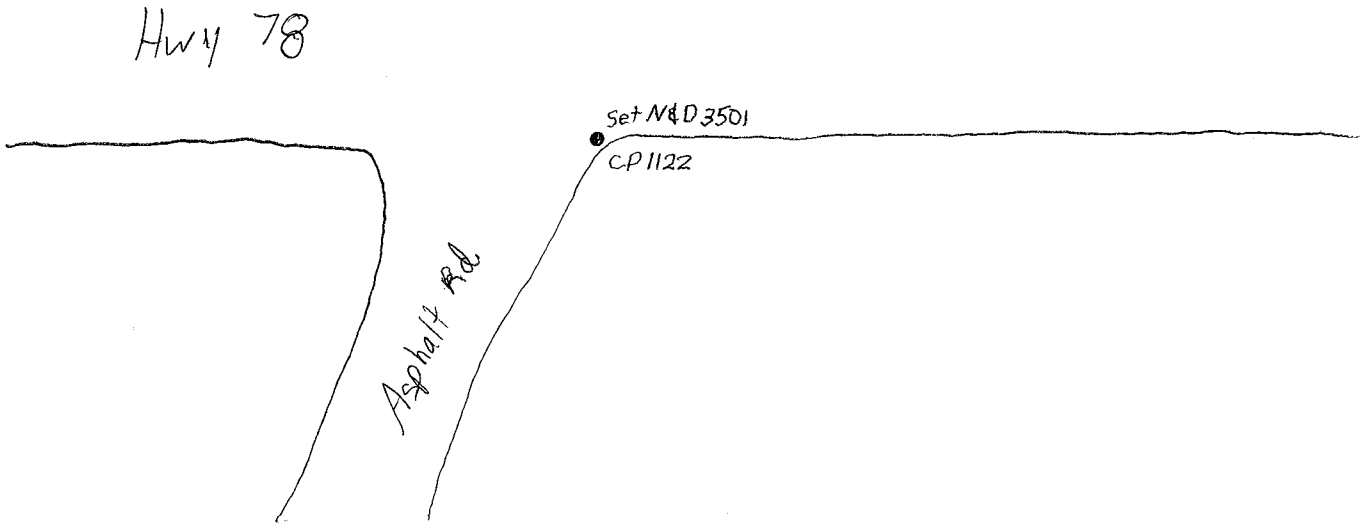
SUBJECT _____

BY _____



CP-1122





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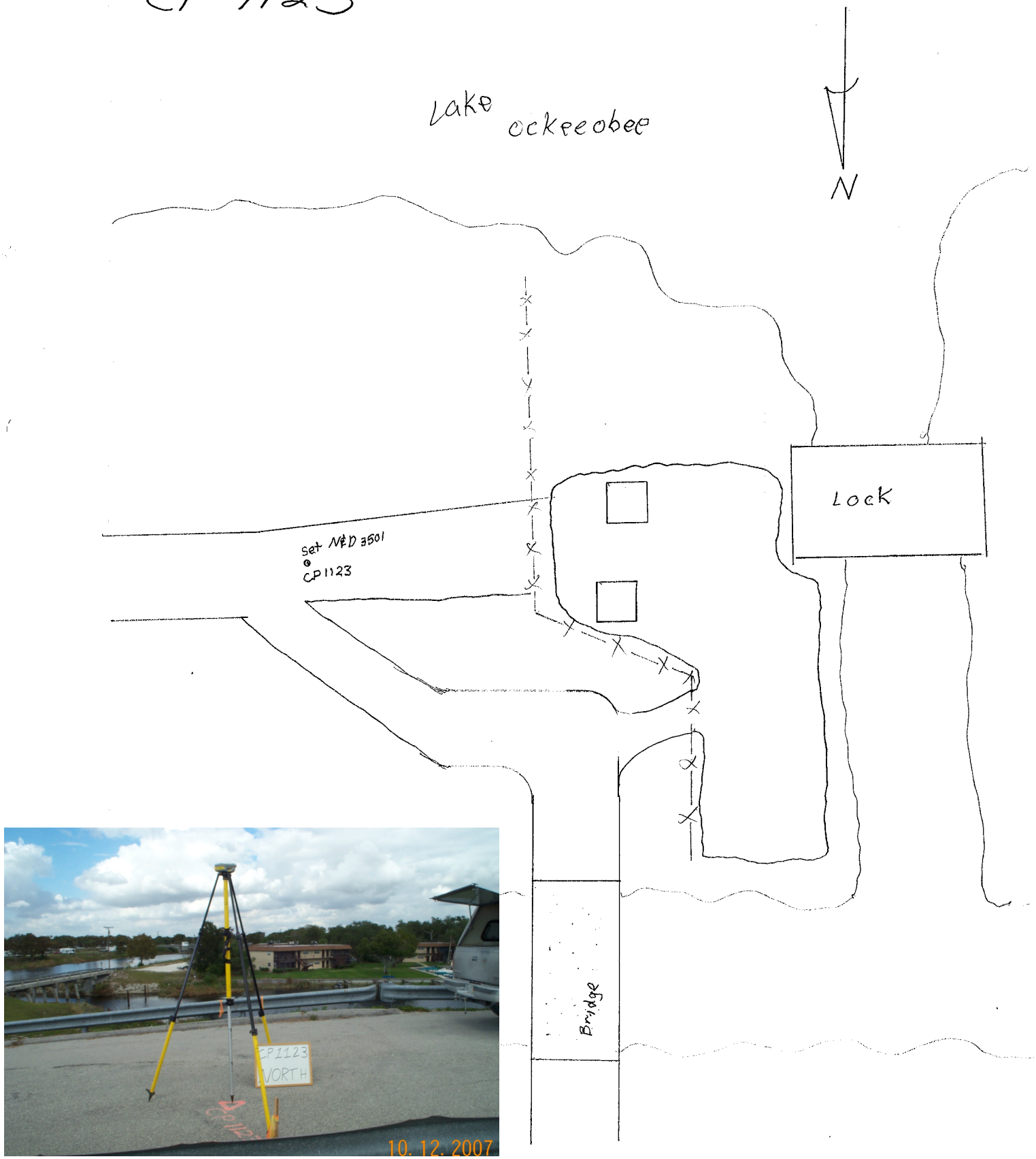
BY _____ JOB NO. _____

CP 1123



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NICEVILLE, FLORIDA 32578

(850) 678-5141

PROJECT

SUBJECT

BY



N

CP 1124

Picnic Area

grass

grass Field

State RD 4411

CP1124

Grass Field

woods

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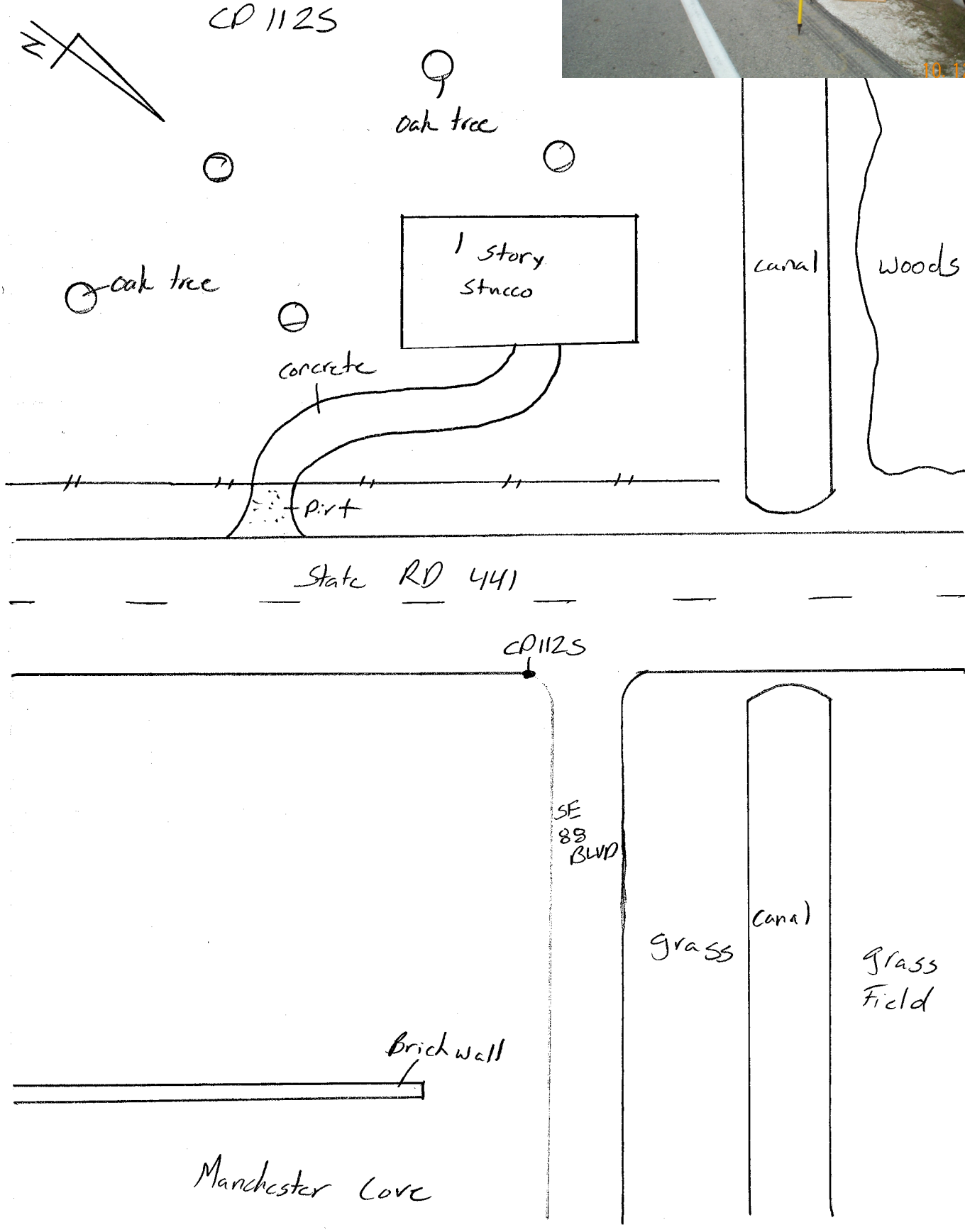
PROJECT _____

SUBJECT _____

BY _____





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PROJECT _____

SUBJECT _____

BY _____



CP1126

canal

Woods

canal

wood deck

1 story Block Blue roof

Bridge

CP1126

grass Field

canal

grass Field

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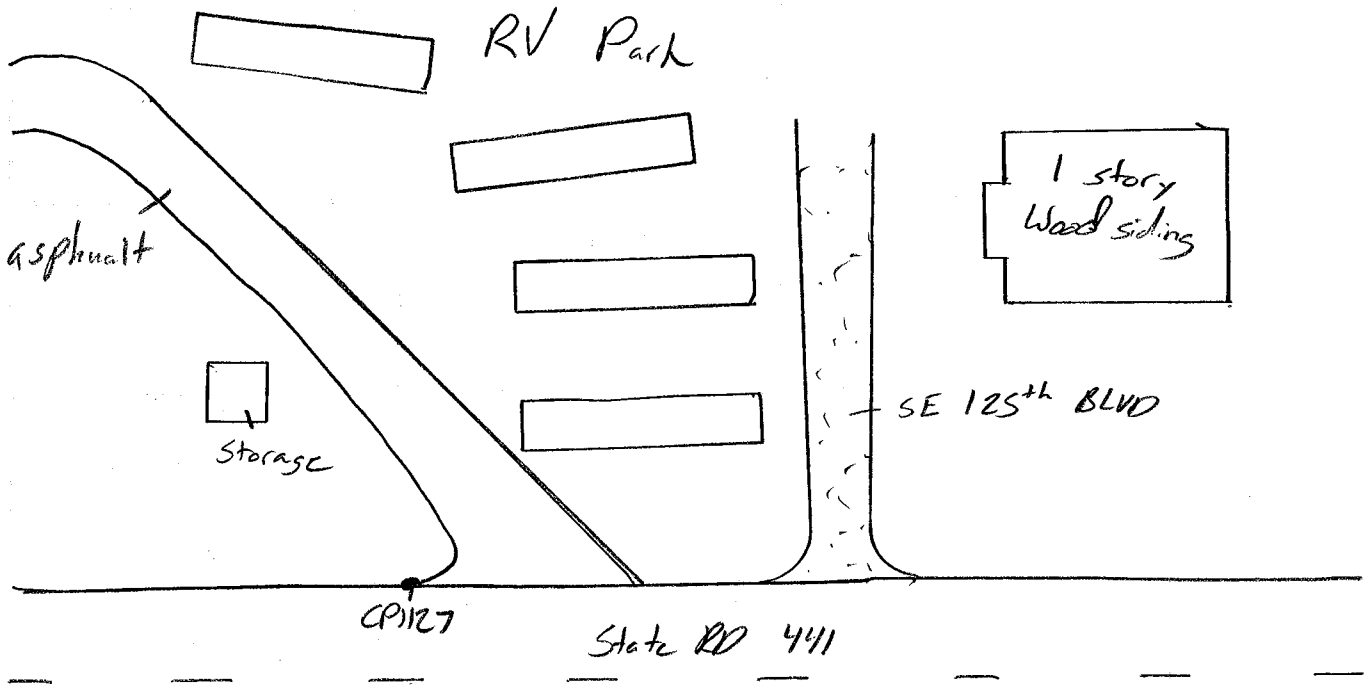
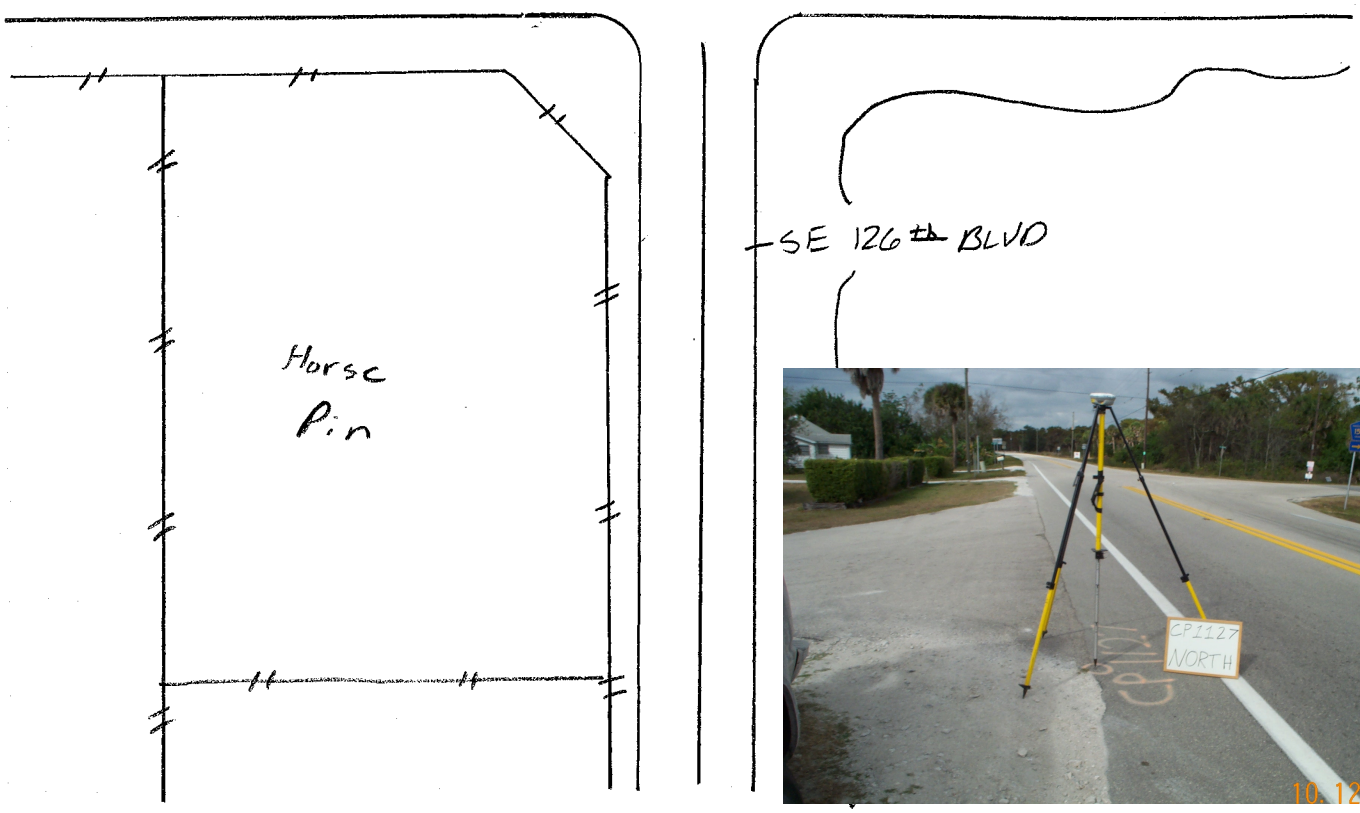
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1127





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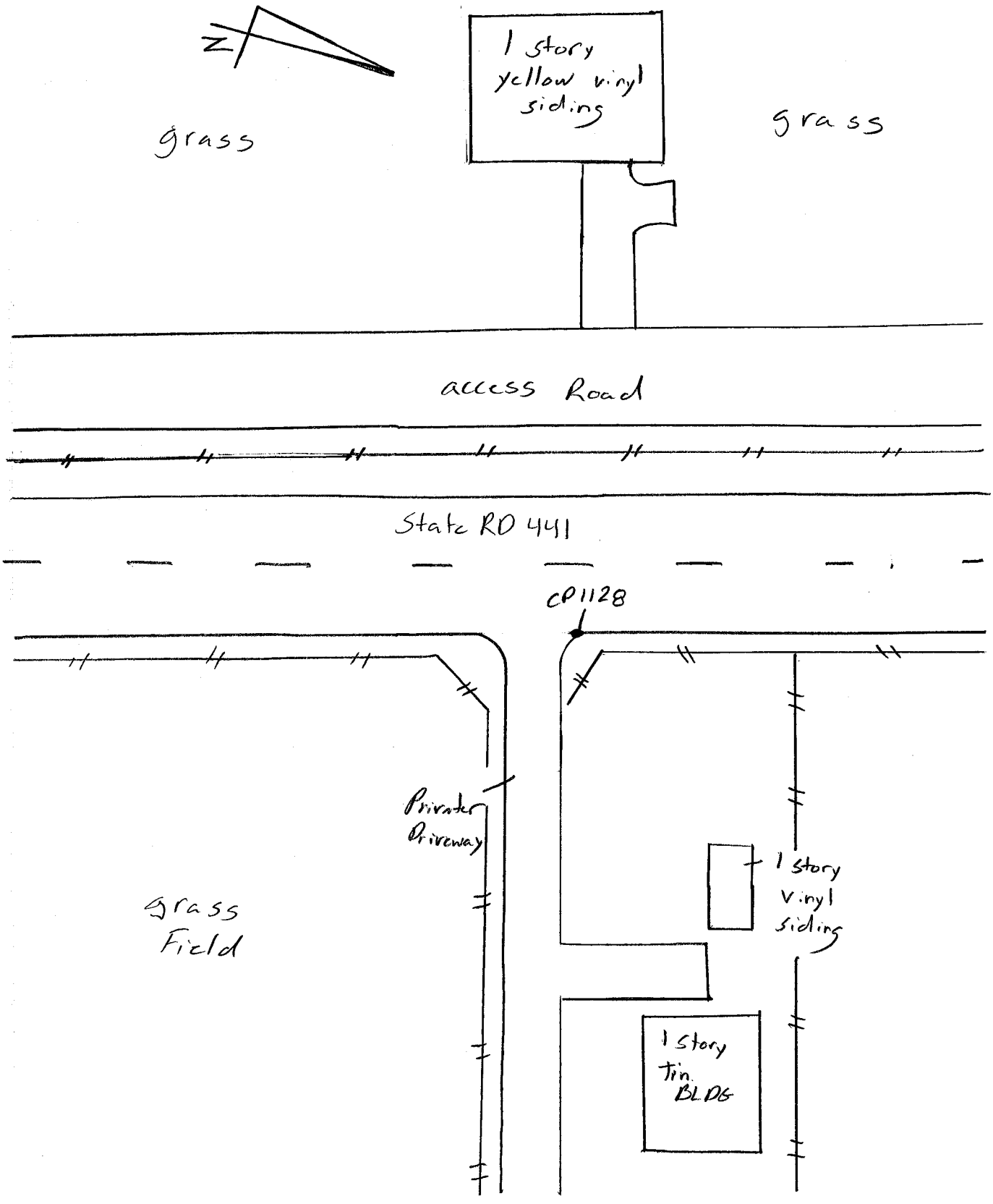
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1128



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PROJECT _____

SUBJECT _____

BY _____



CP 1129

N

Wood line

Wood line

15" galvenized Pipe

canal

Wood line

Wood line

CP1129

State RD 441

canal

1 story stucco green roof

grass Field

canal

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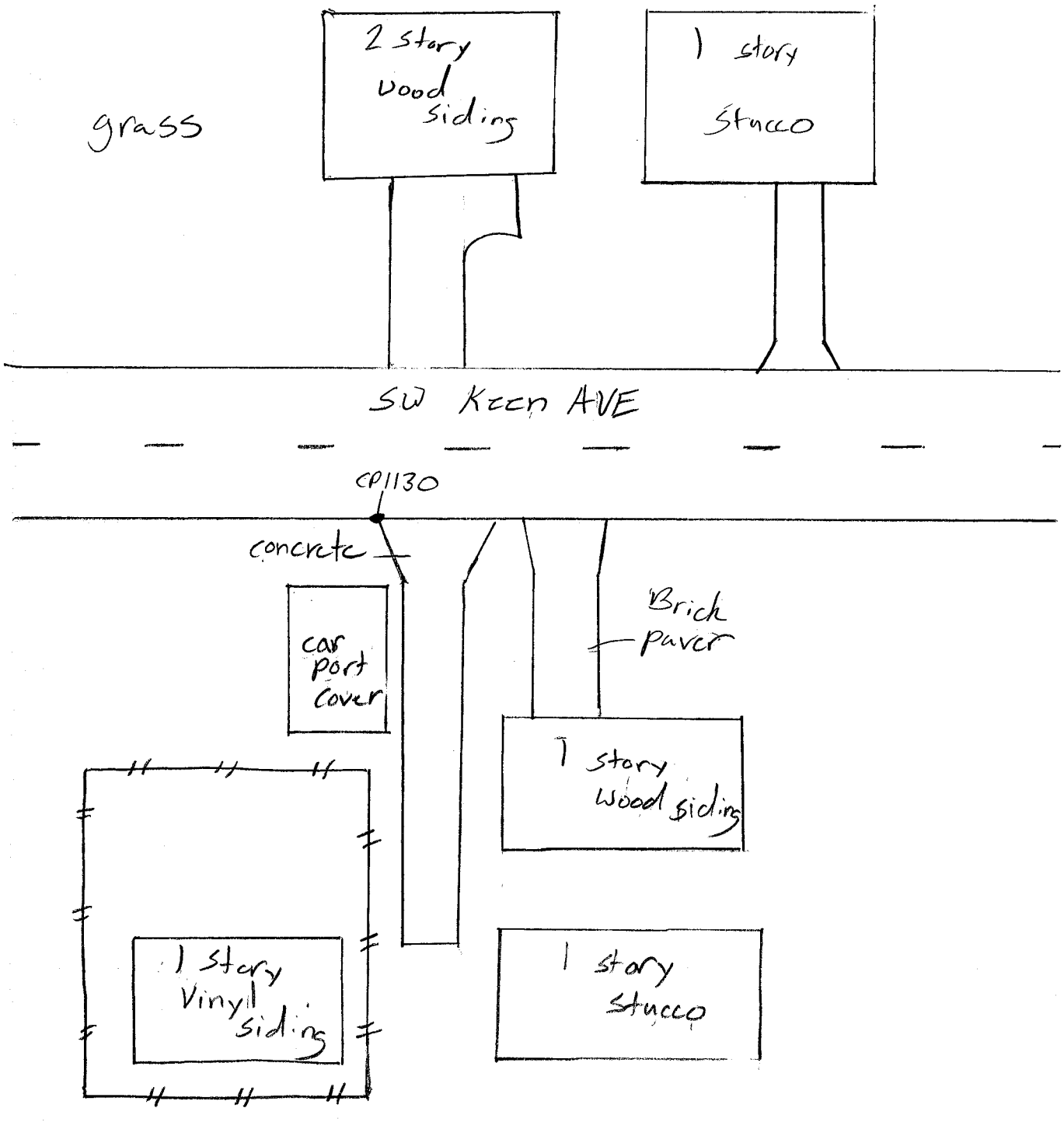
PROJECT

SUBJECT

BY _____

CP 1130





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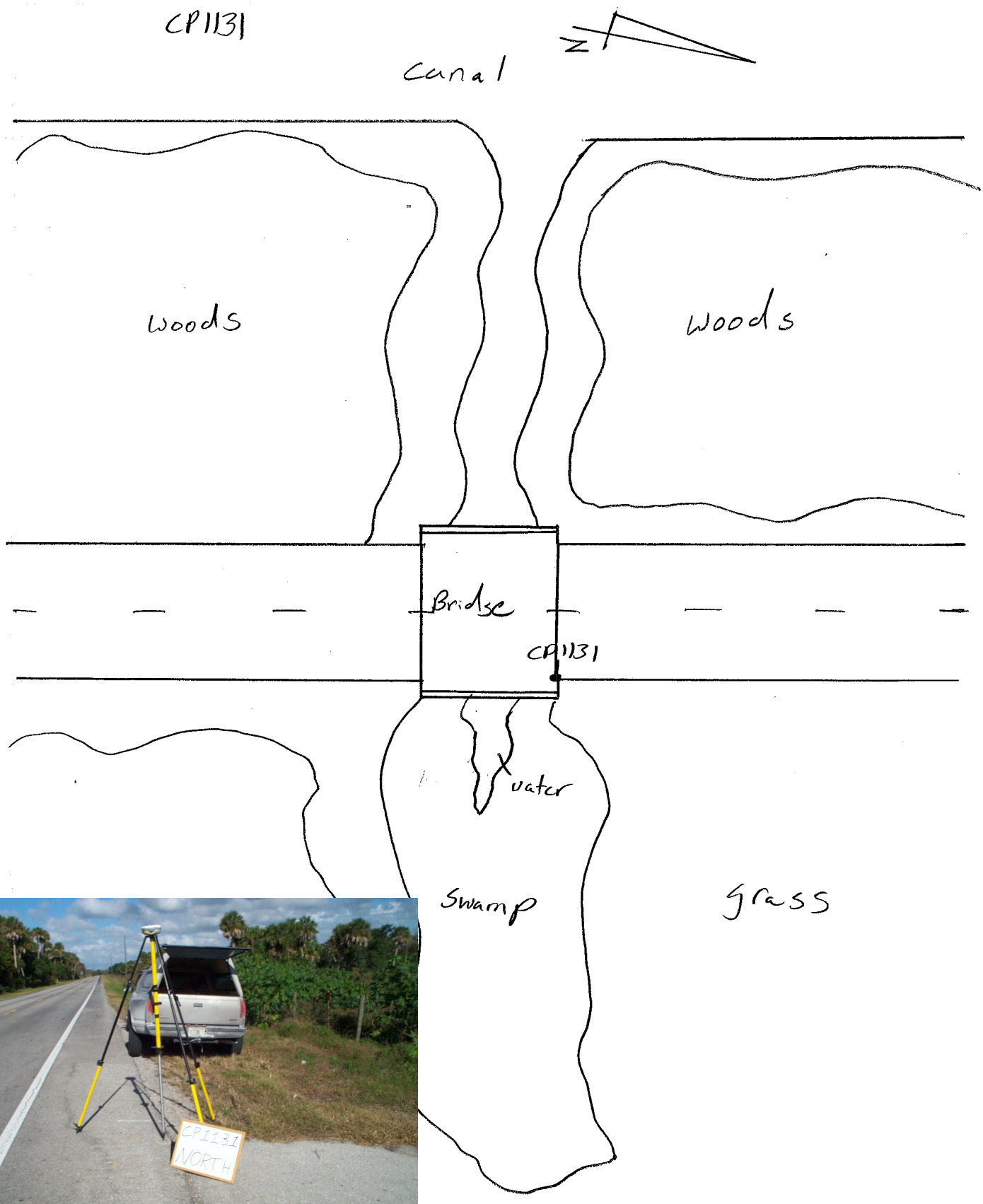
BY _____ JOB NO. _____

CP1131



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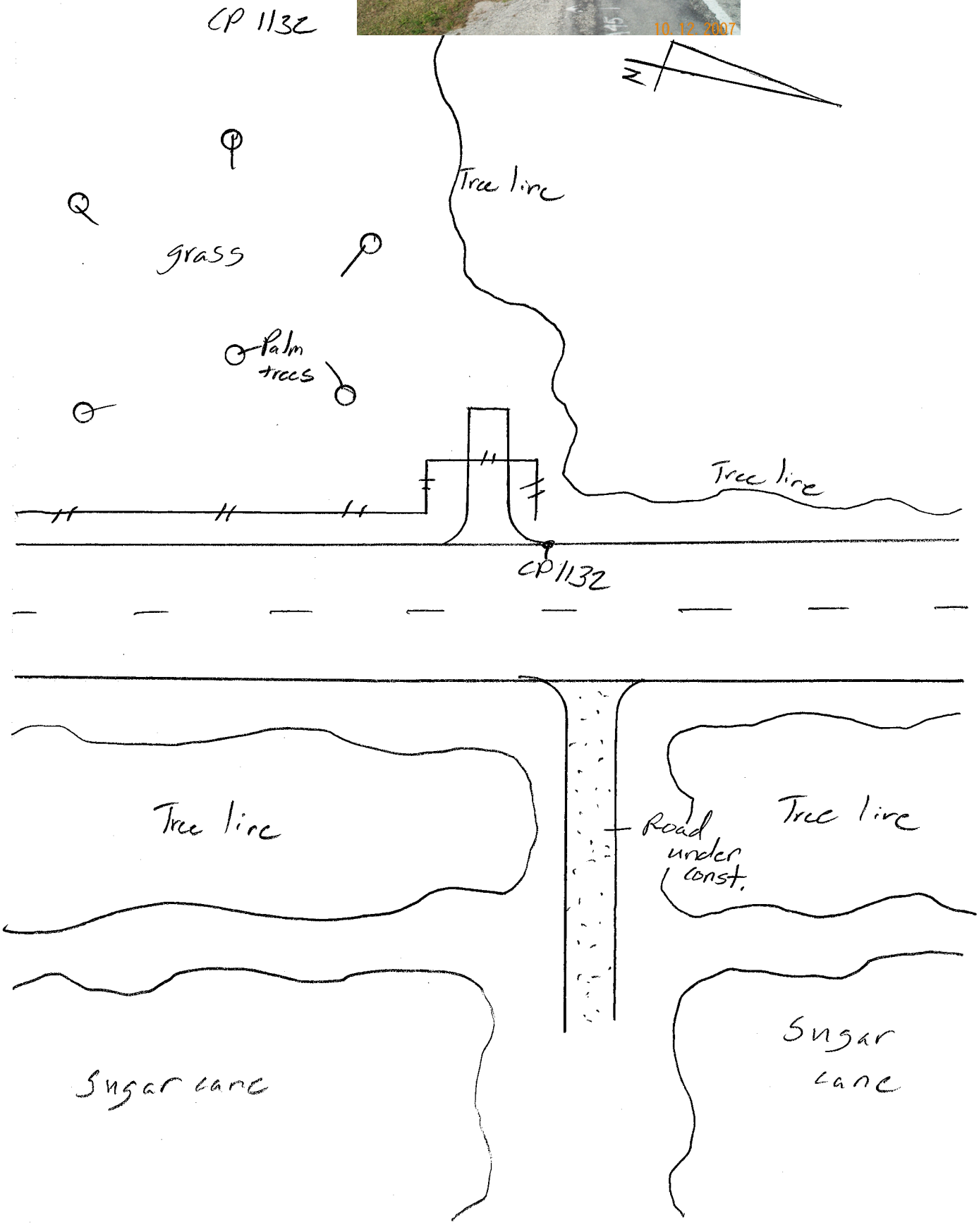
SHEET _____ OF _____

DATE _____

JOB NO. _____



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SUBJECT _____ DATE _____

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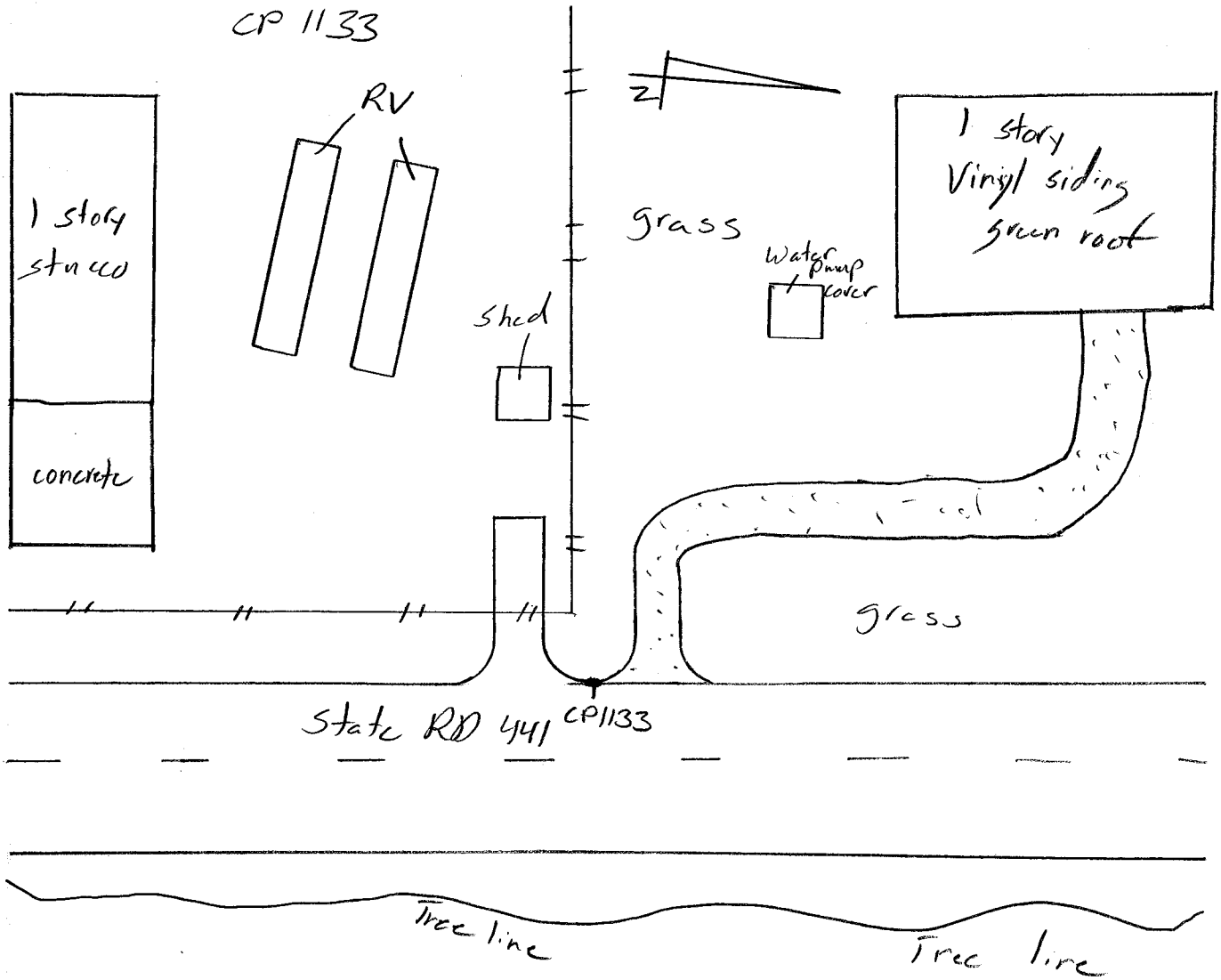



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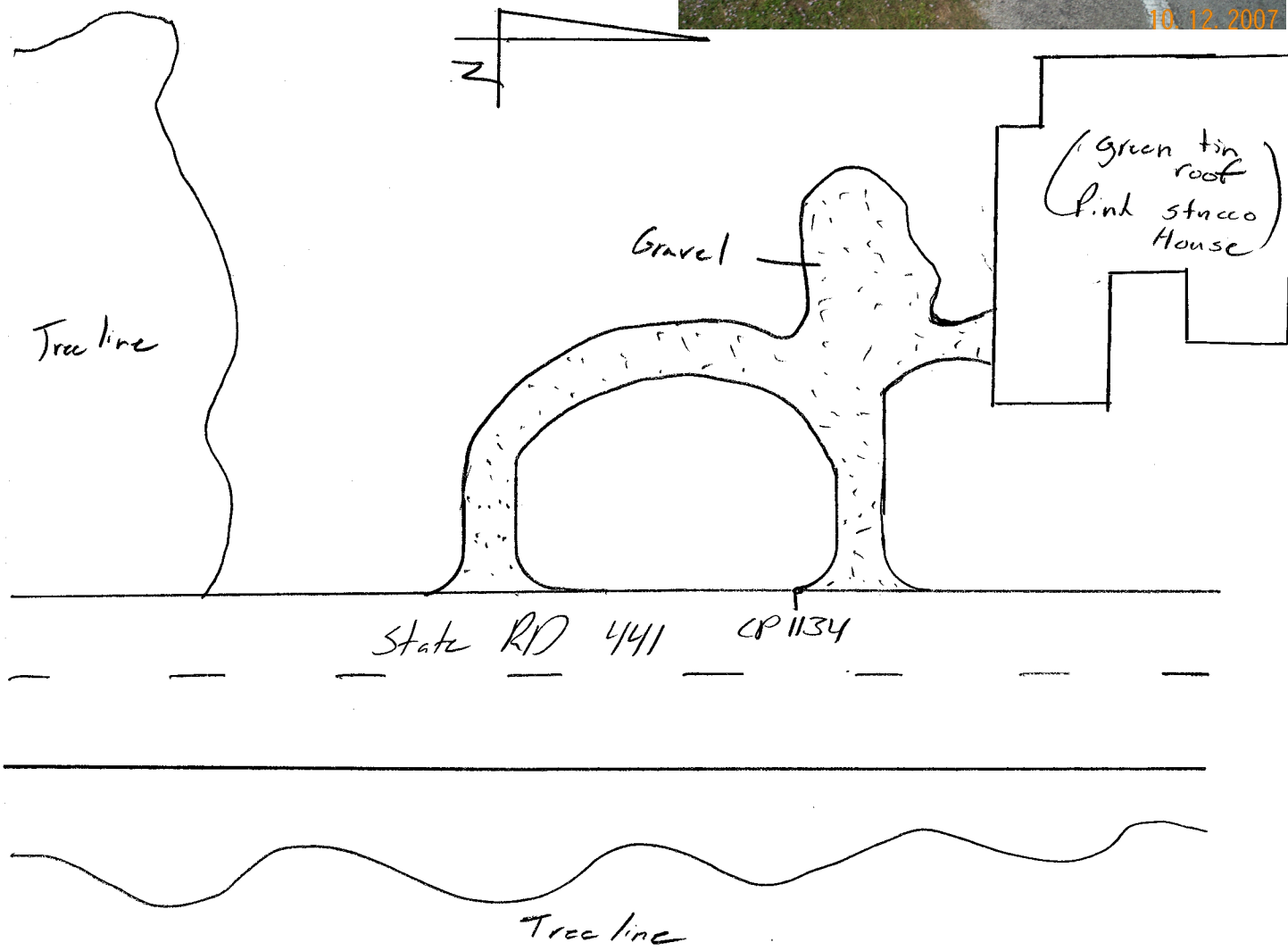
PROJECT _____

SUBJECT _____

BY _____



CP 1134



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CP 1135



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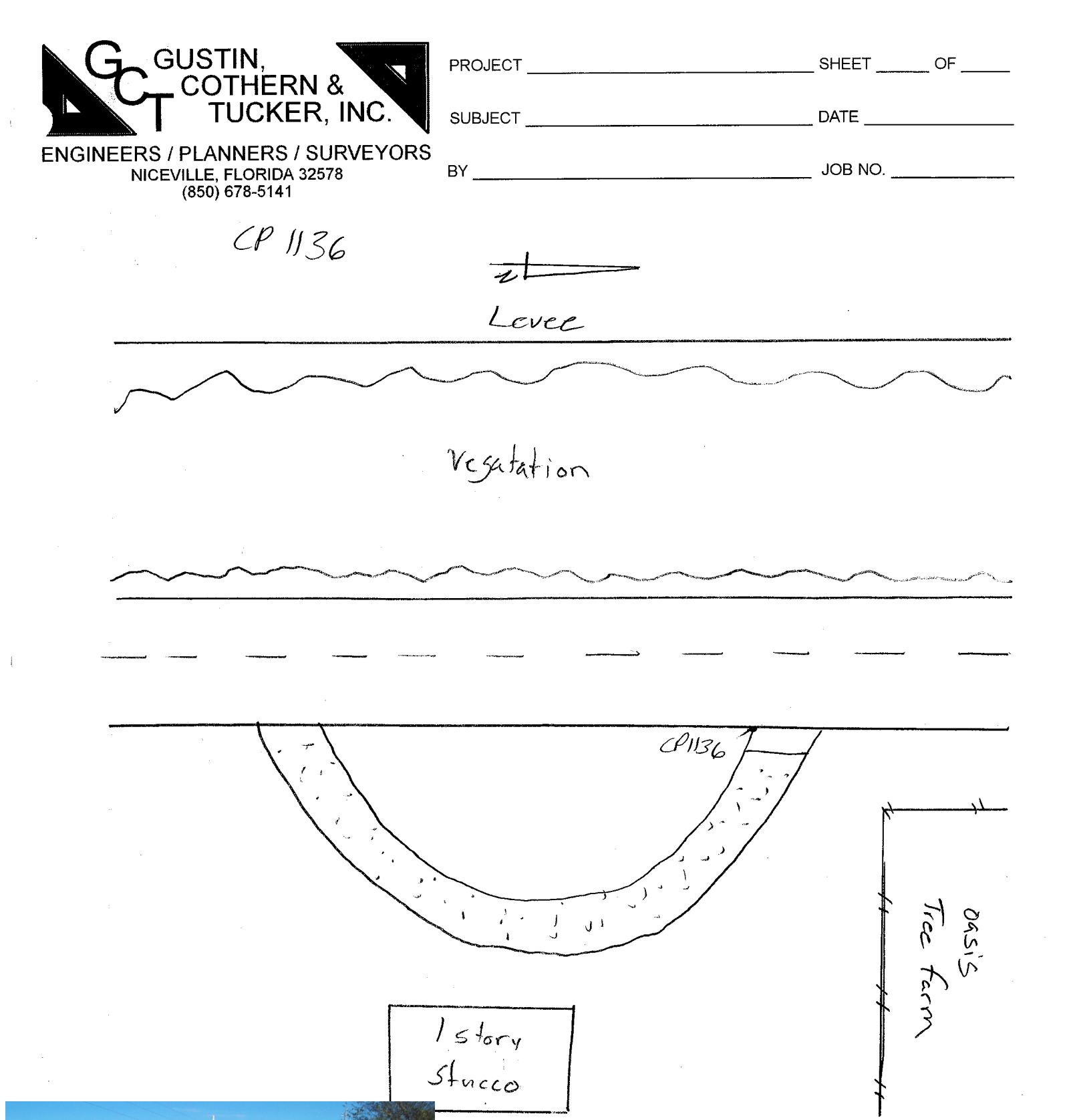
BY _____ JOB NO. _____





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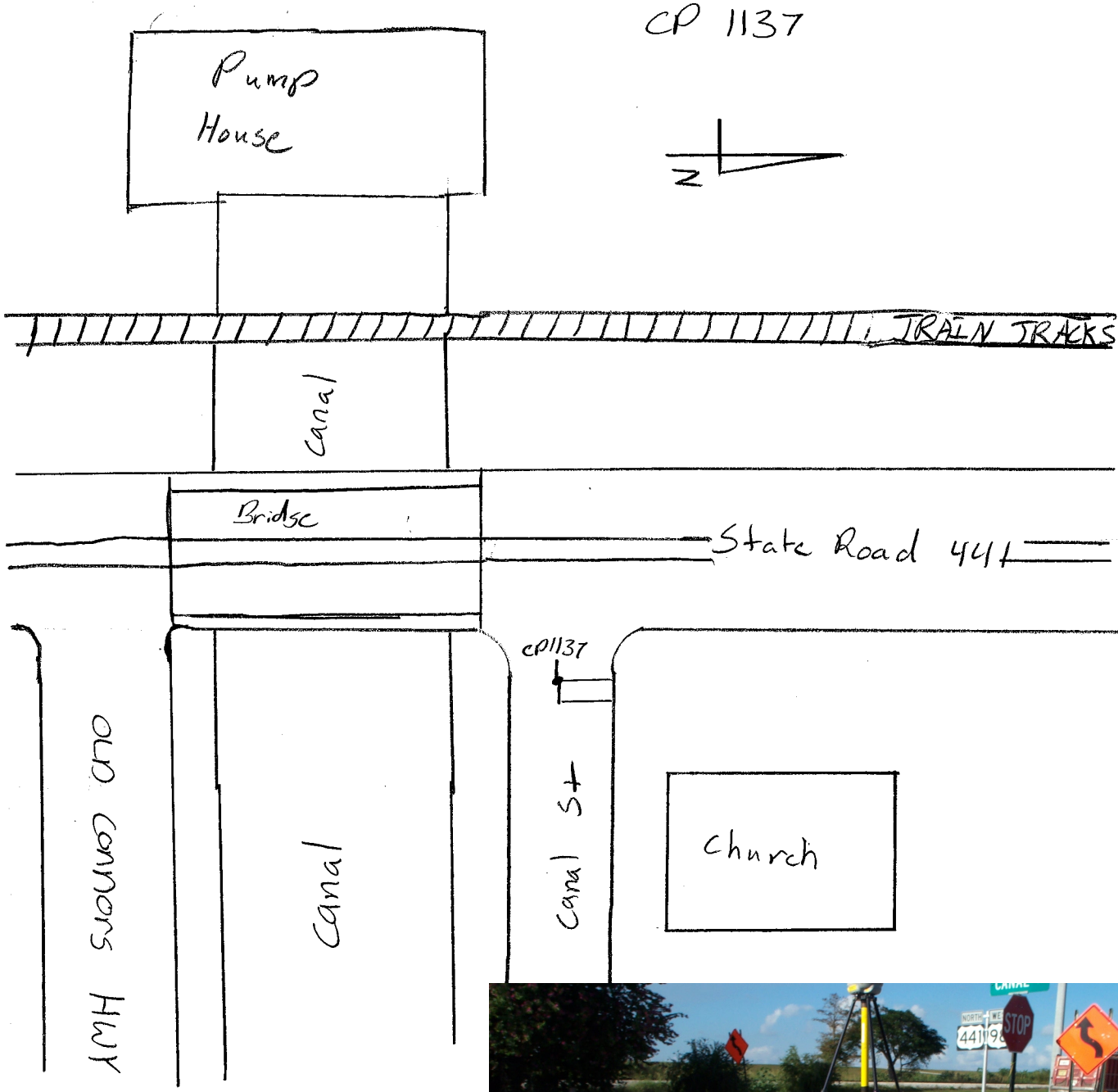
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1137





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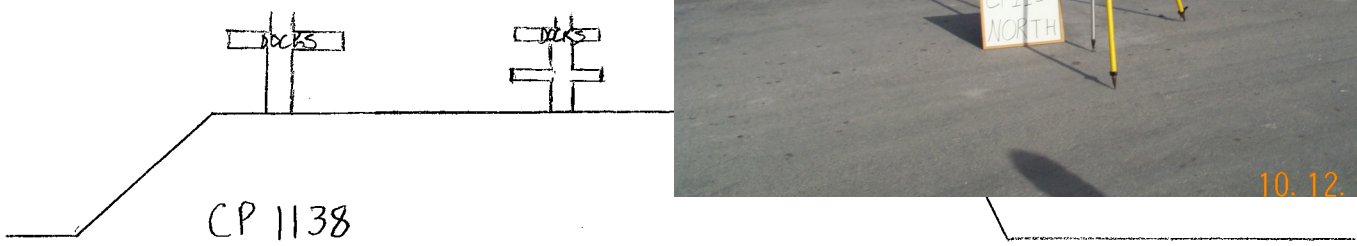
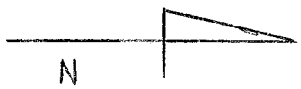
PROJECT

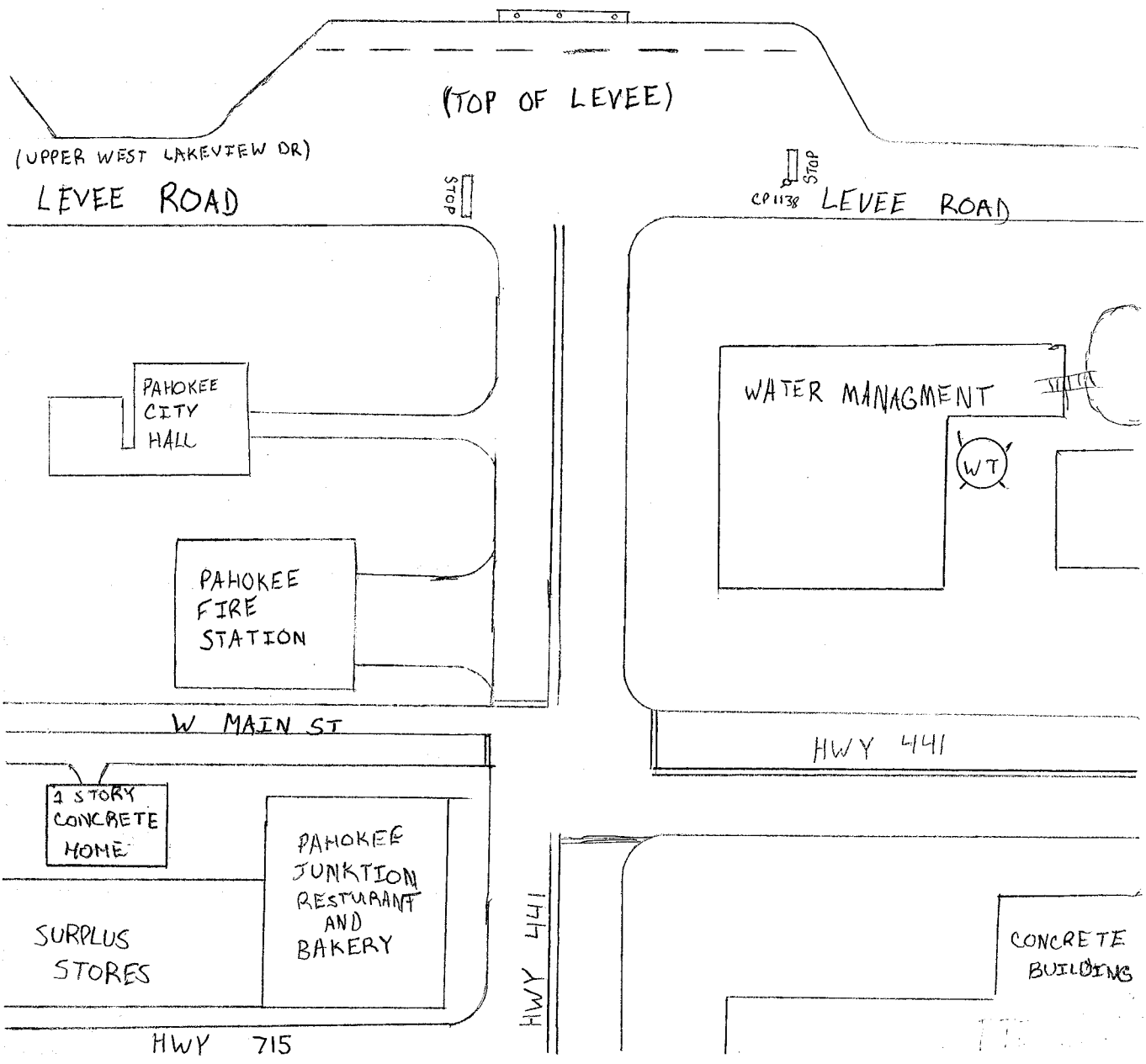
SUBJECT

BY









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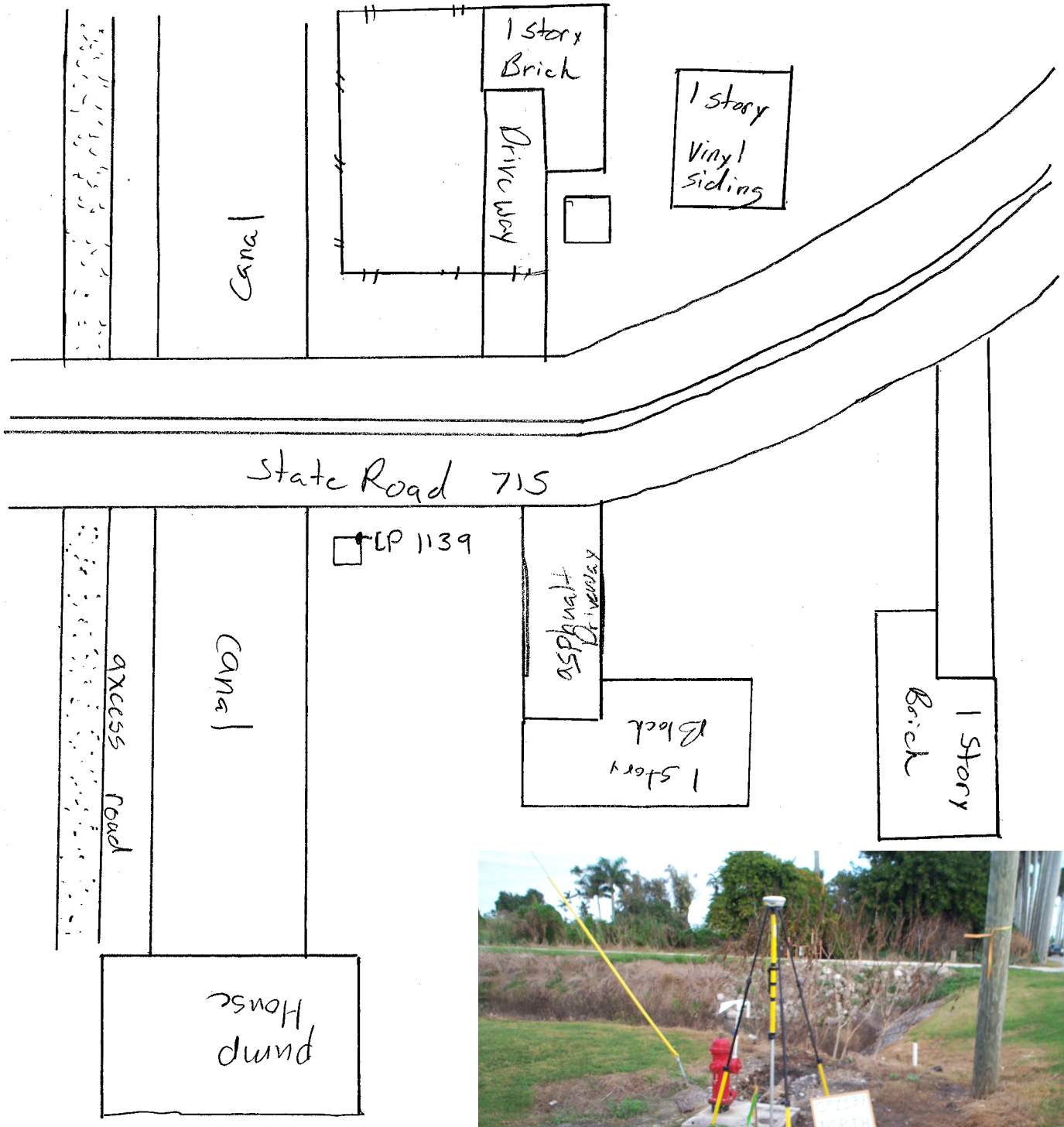
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1139



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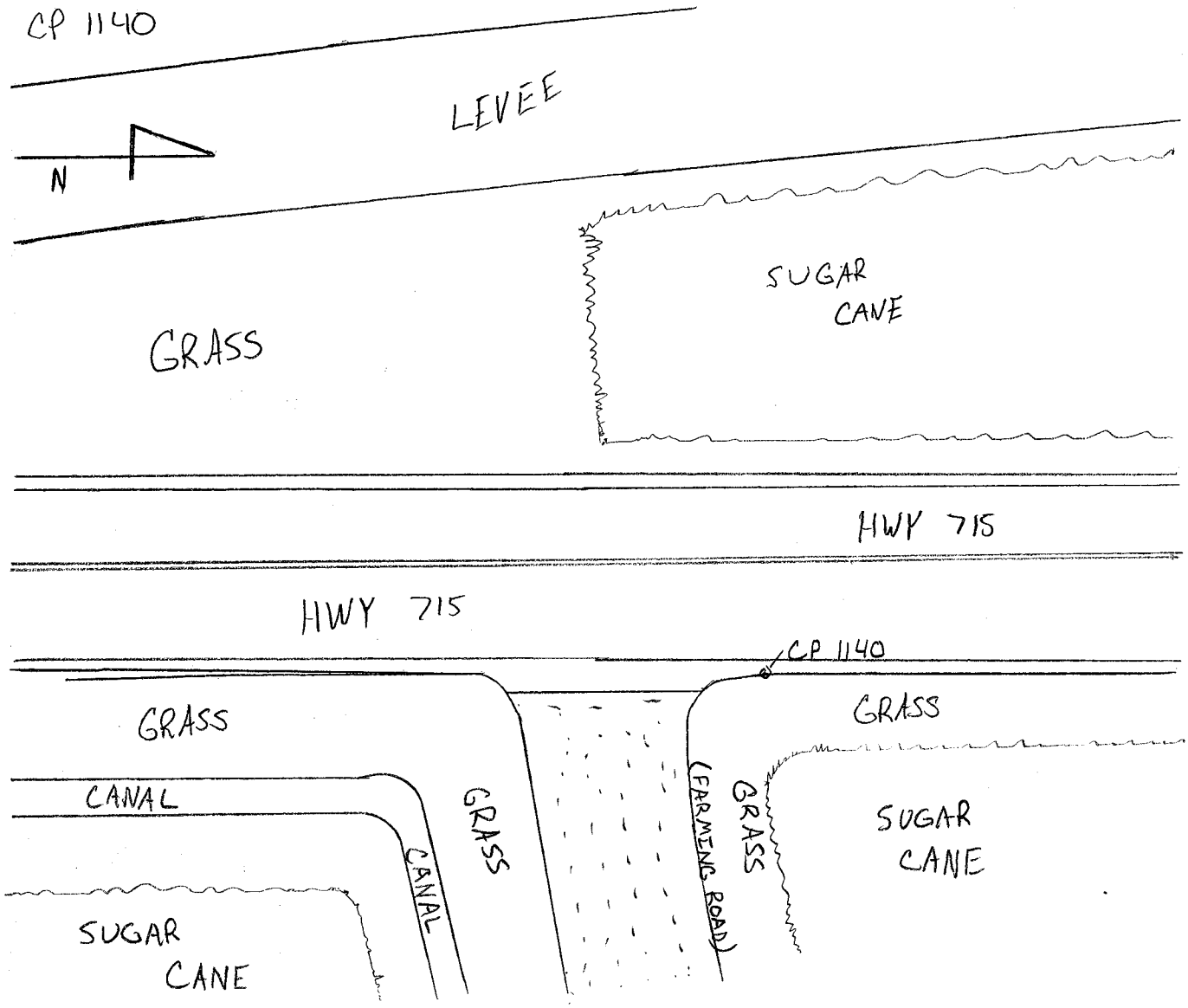



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SUBJECT _____

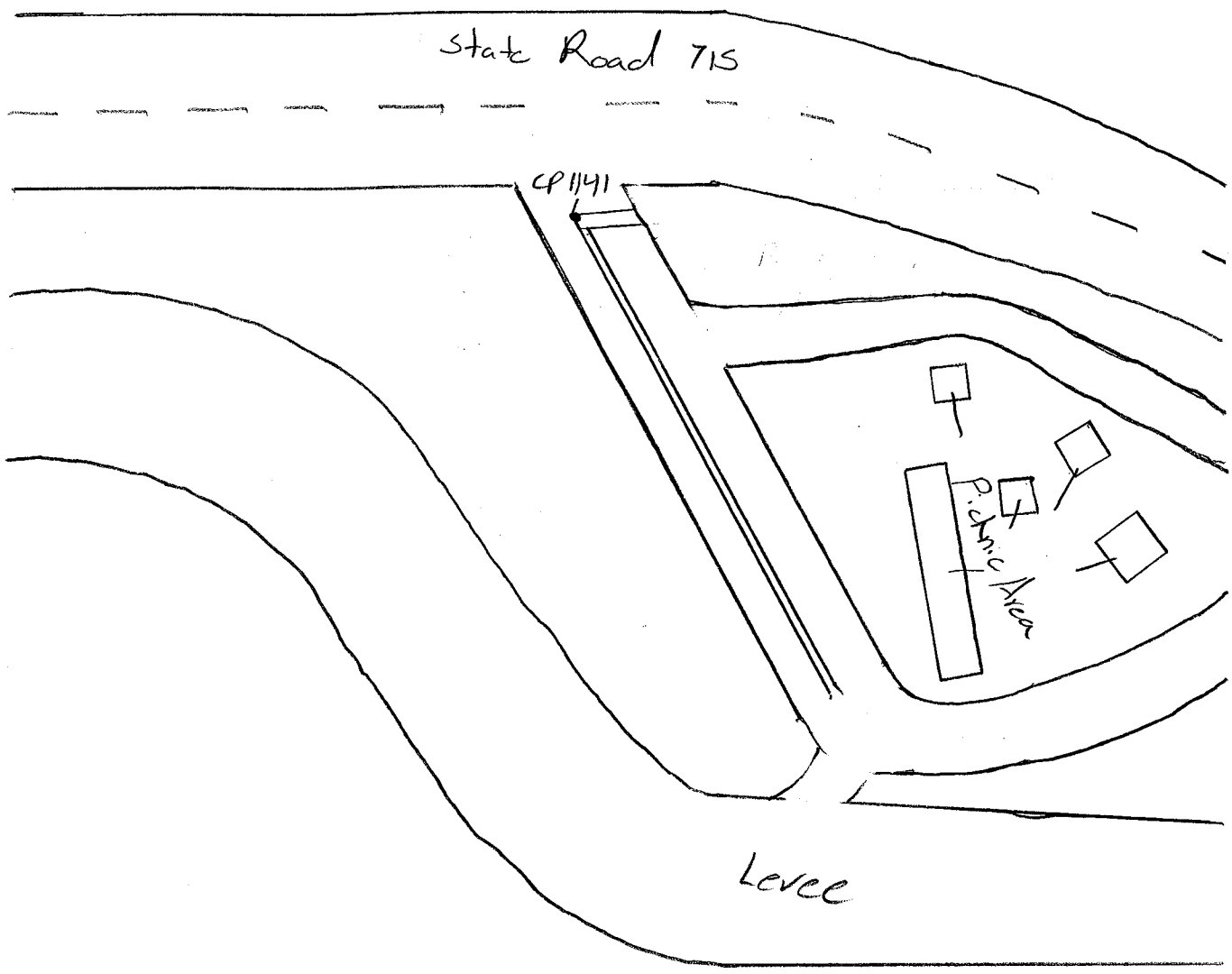
BY _____



CP 1141

N

Sugar Cane



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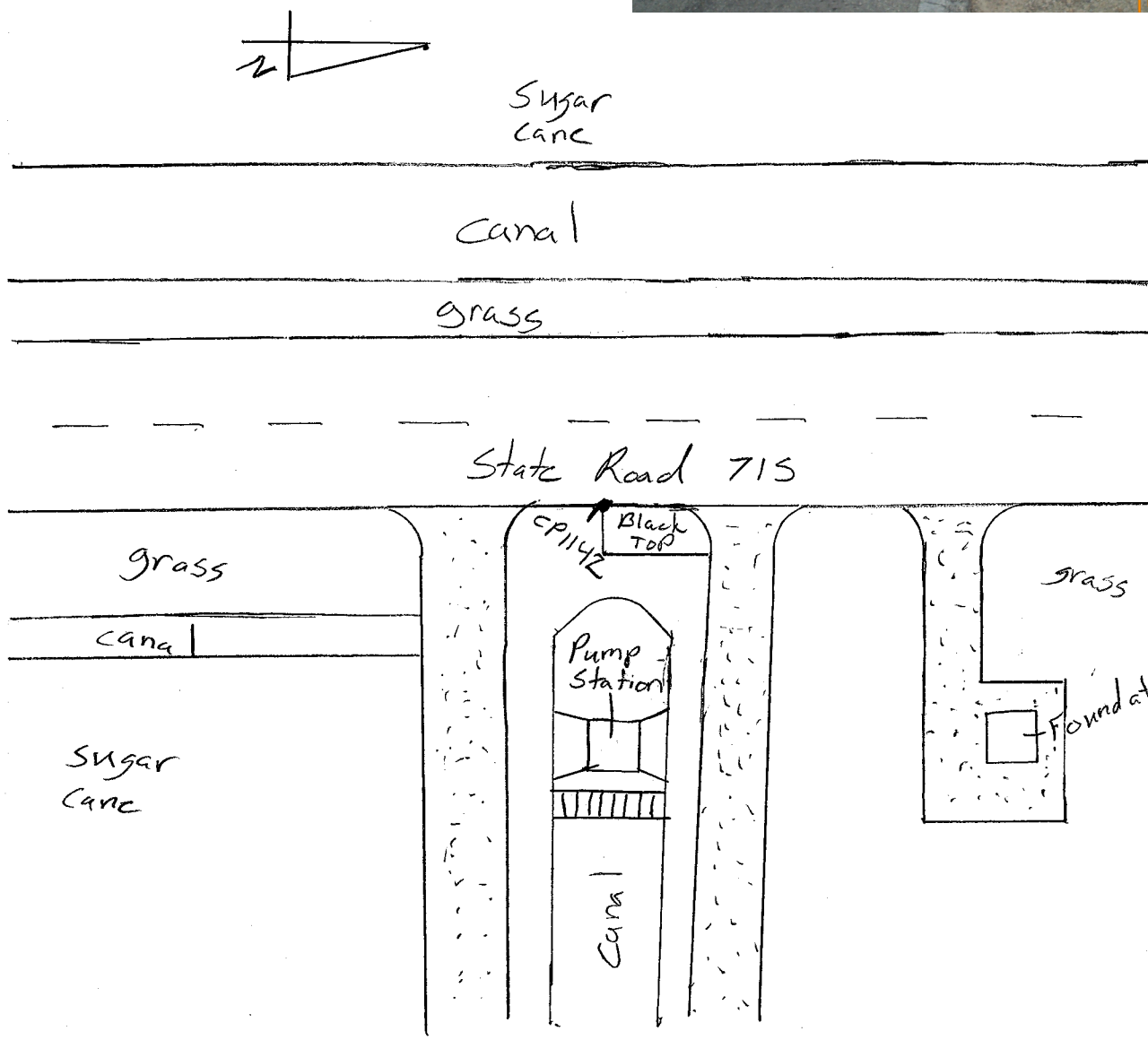
SUBJECT _____

BY _____

CP 1142





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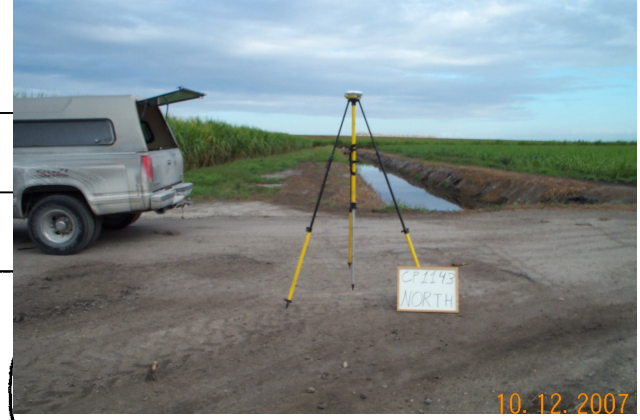

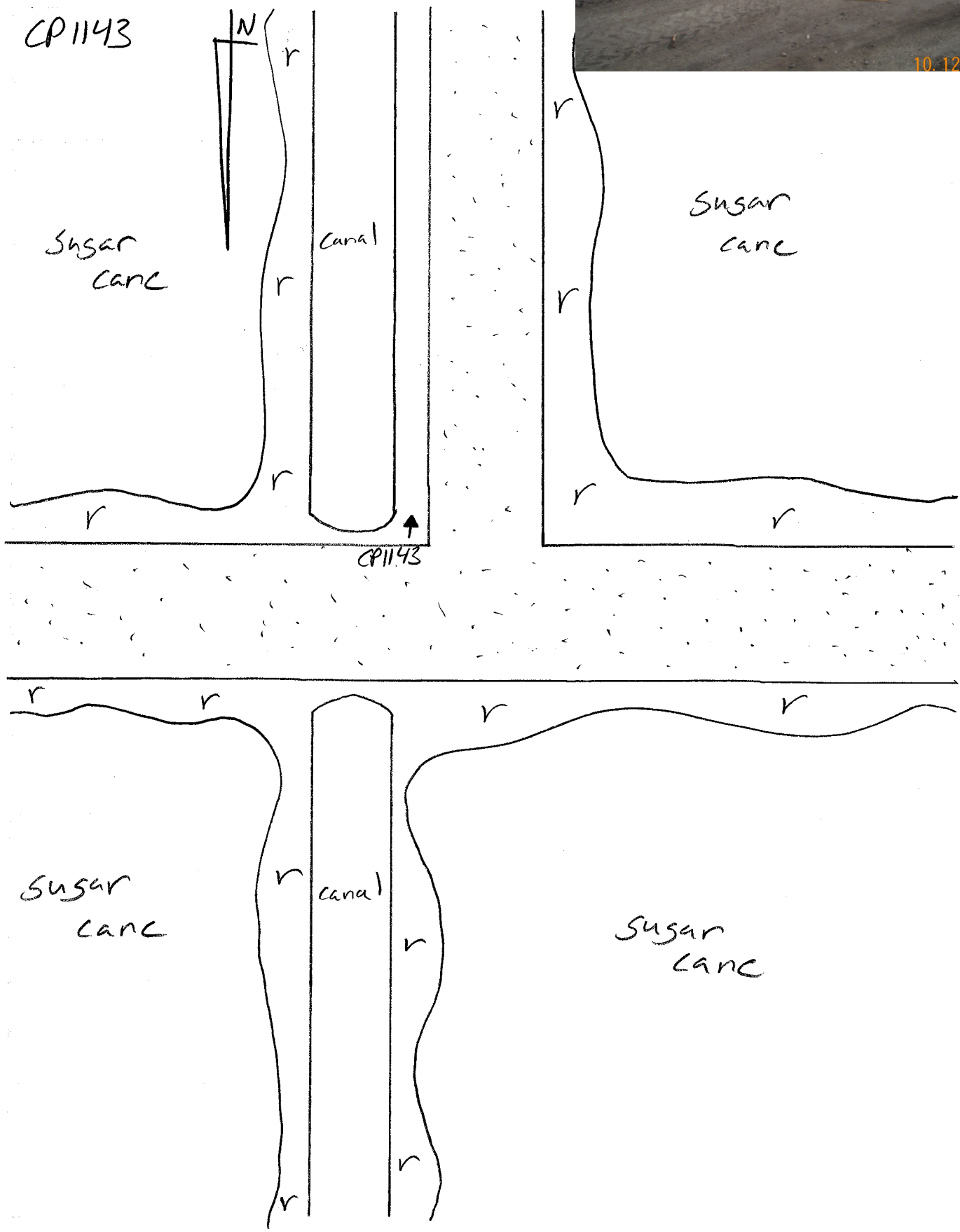
CP1143
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PROJECT

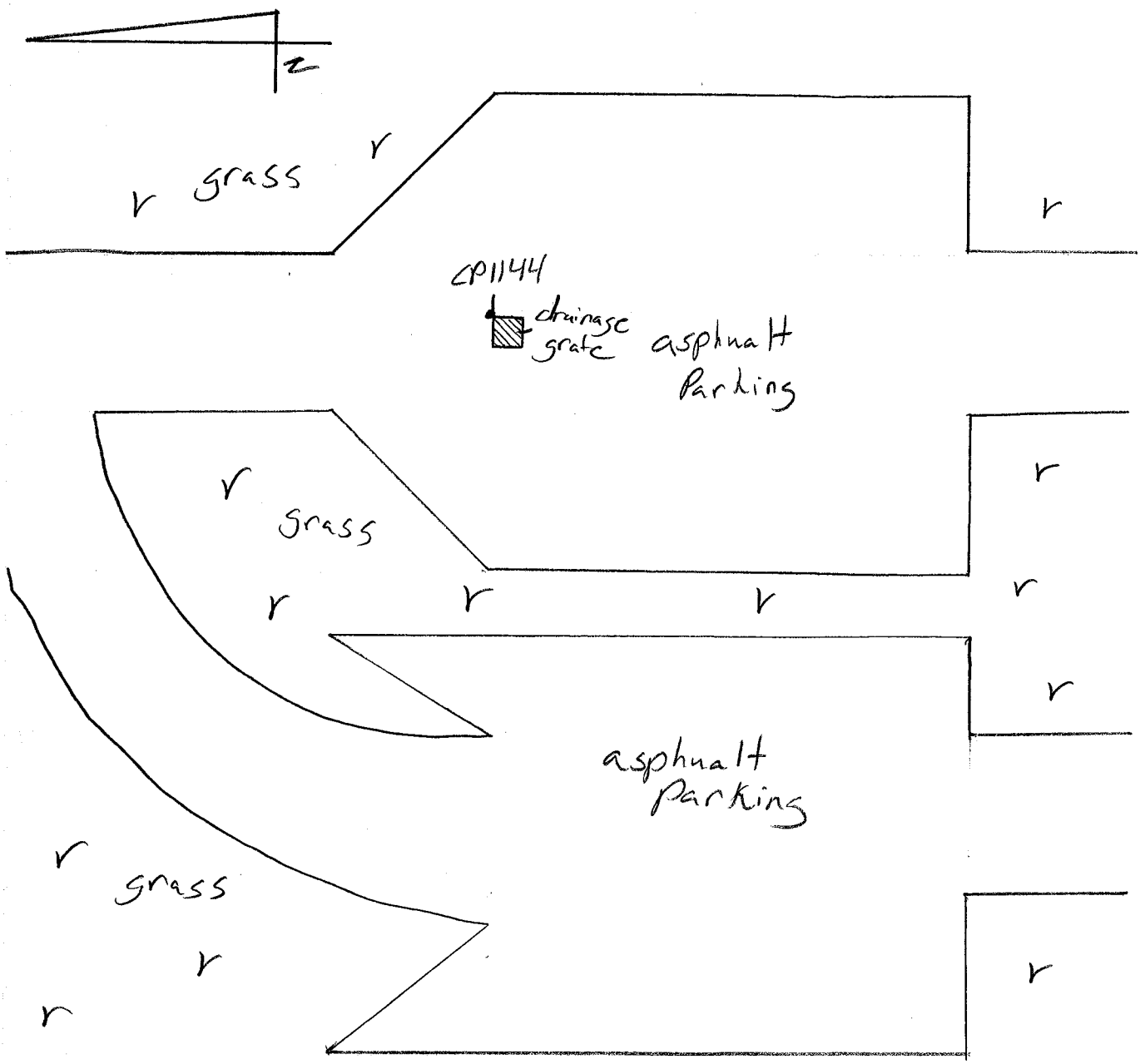
SUBJECT

BY



CP1144

Construction



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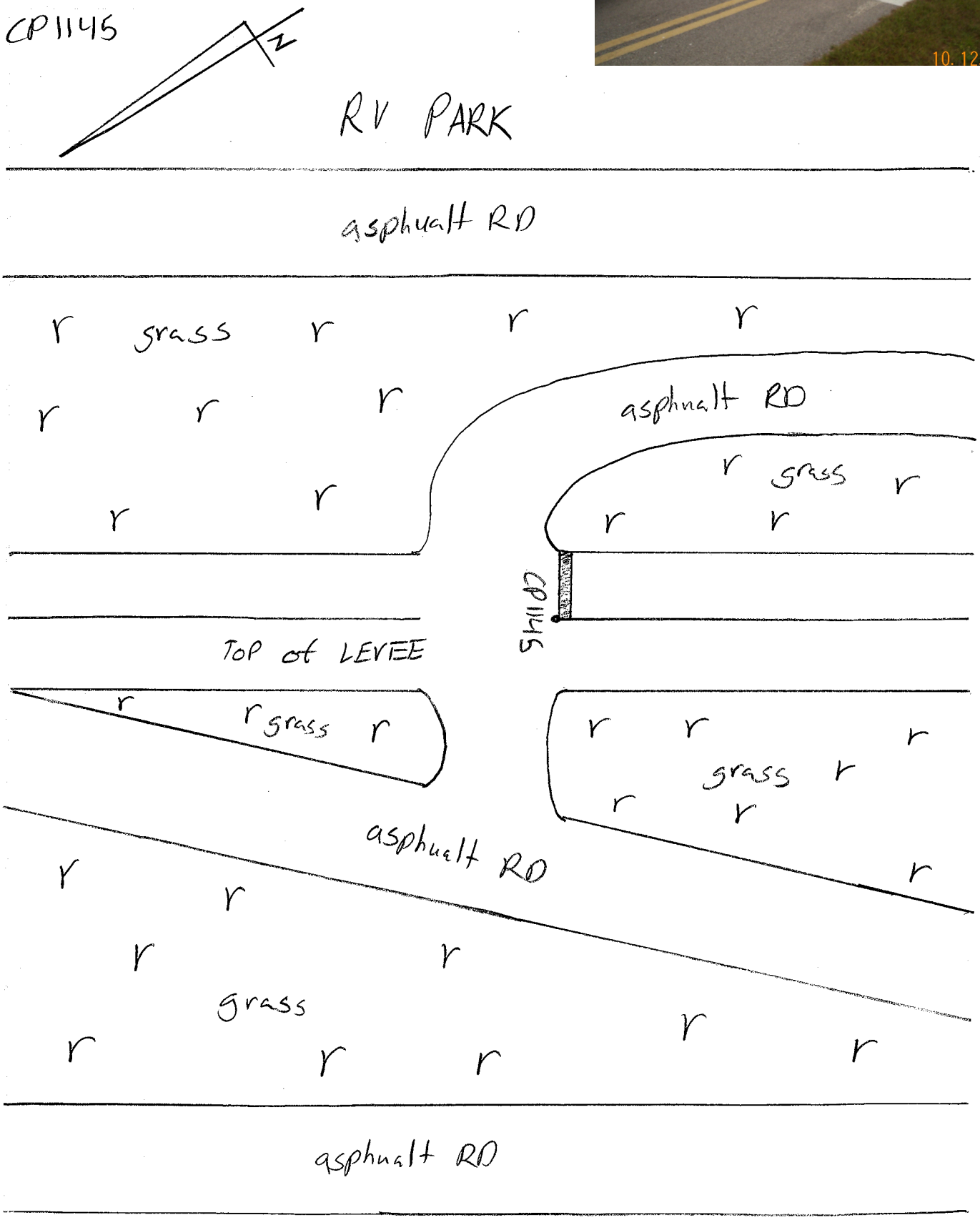
PROJECT _____

SUBJECT _____

BY _____





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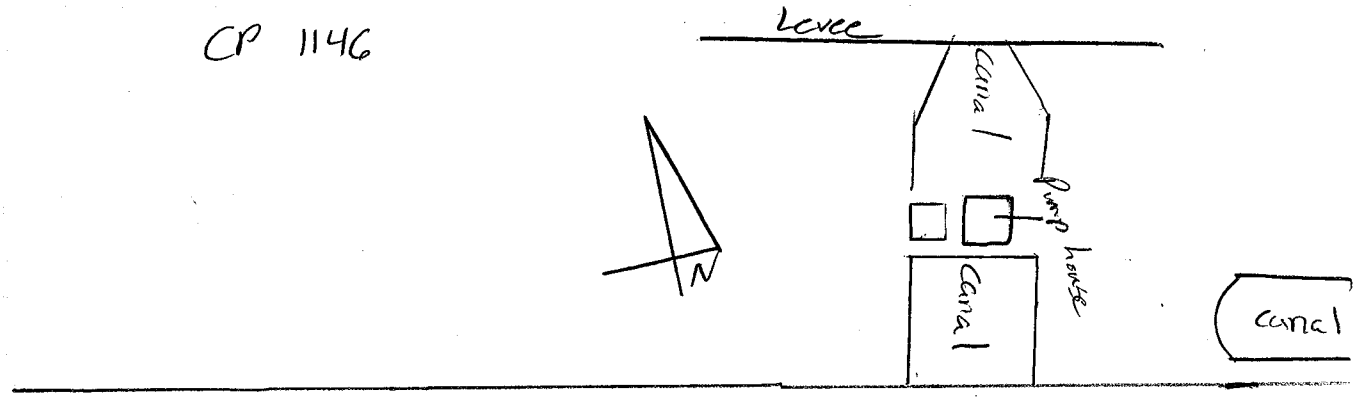
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1146



State Road 27

Grass

CP1146

Grass

State Road 27

1 story
Vinil siding

Corkscrew BLVD

Canal



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SUBJECT _____ DATE _____

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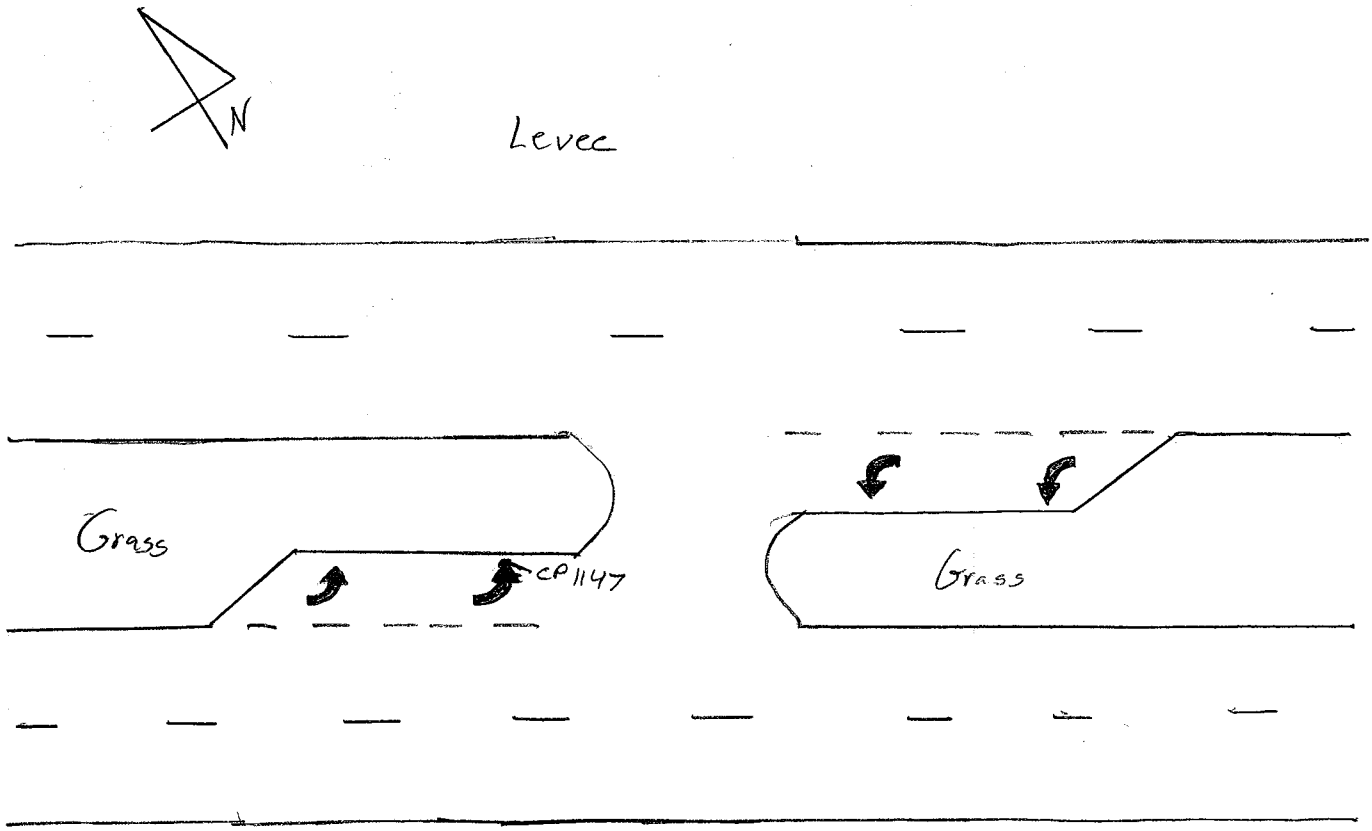
CP 1147



farm land



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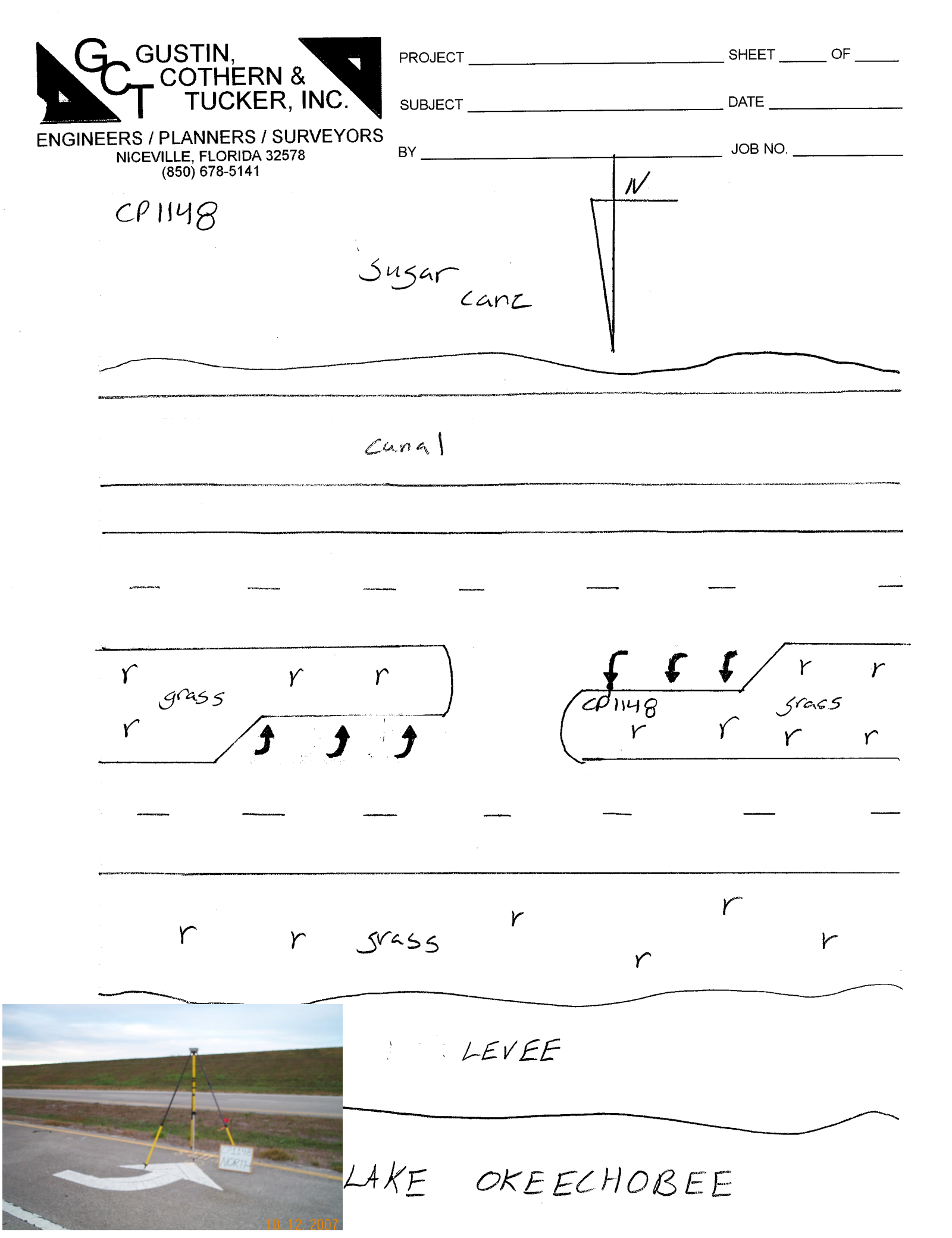
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP1148



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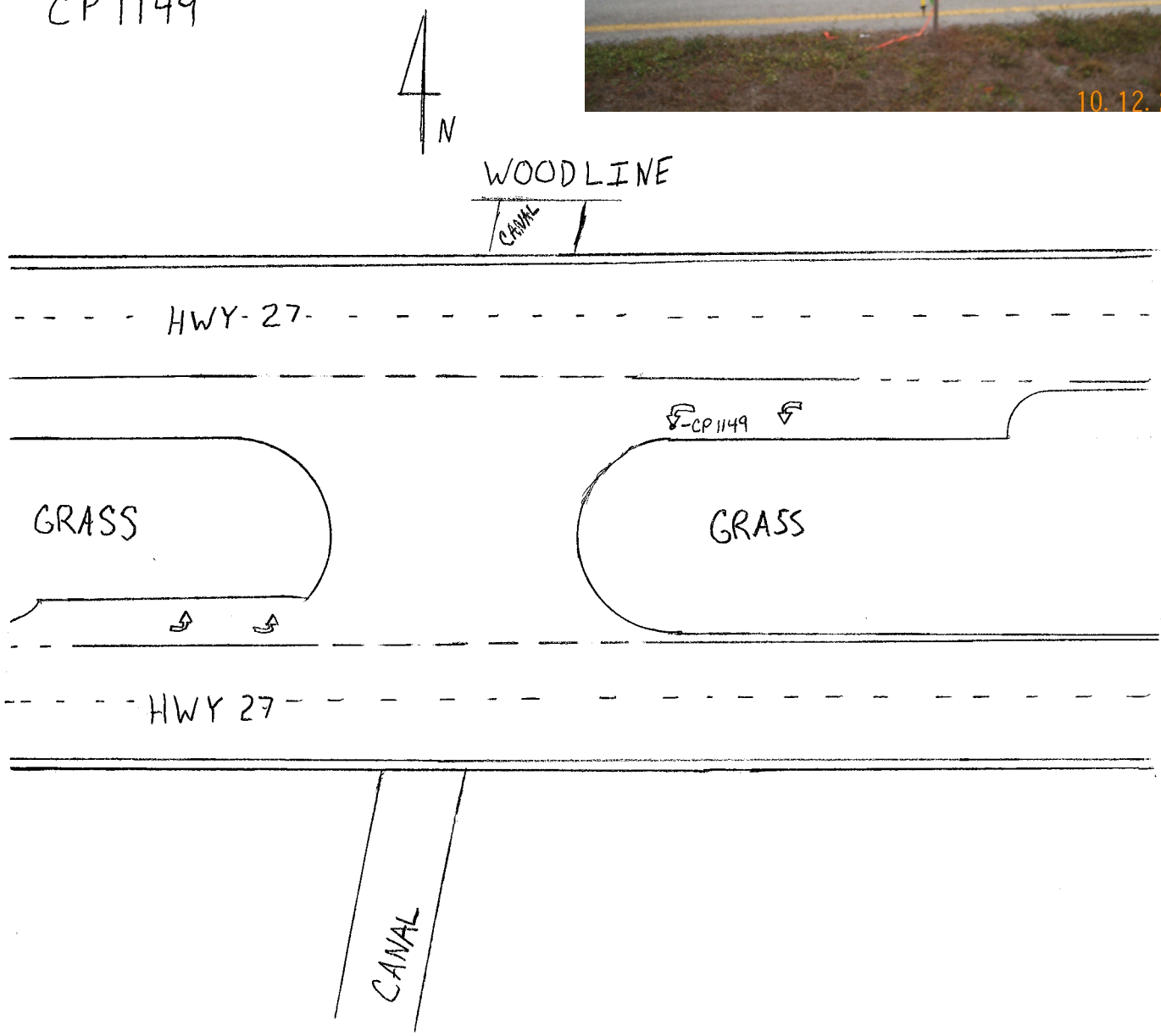
PROJECT _____

SUBJECT _____

BY _____



CP 1149



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PROJEC

SUBJEC

BY



CP 1150

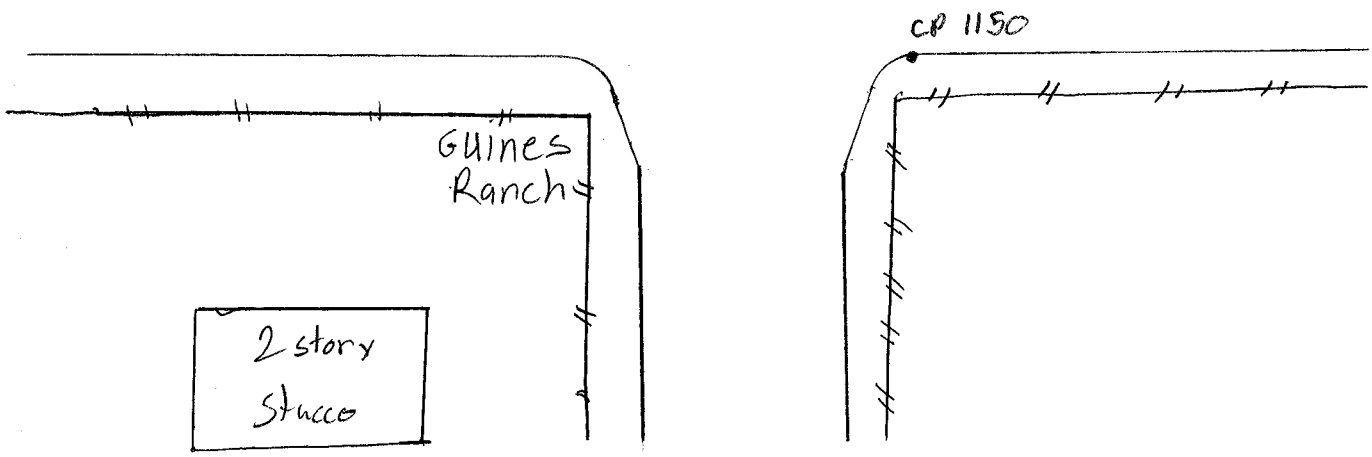
N

Levee

State Road 27

Grass

State Road 27



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PROJECT _____

SUBJECT _____

BY _____



CP 1151

N

GRASS

GRASS

U S HWY 27

CROOKED HOOK R.V. RESORT

CP 1151

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

(850) 678-5141

PROJECT

SUBJECT

BY



CP 1152

Level

N

Grass

Grass

State Road 27

CP 1152

EVERGLADE RD.

sign

sign

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

(850) 678-5141

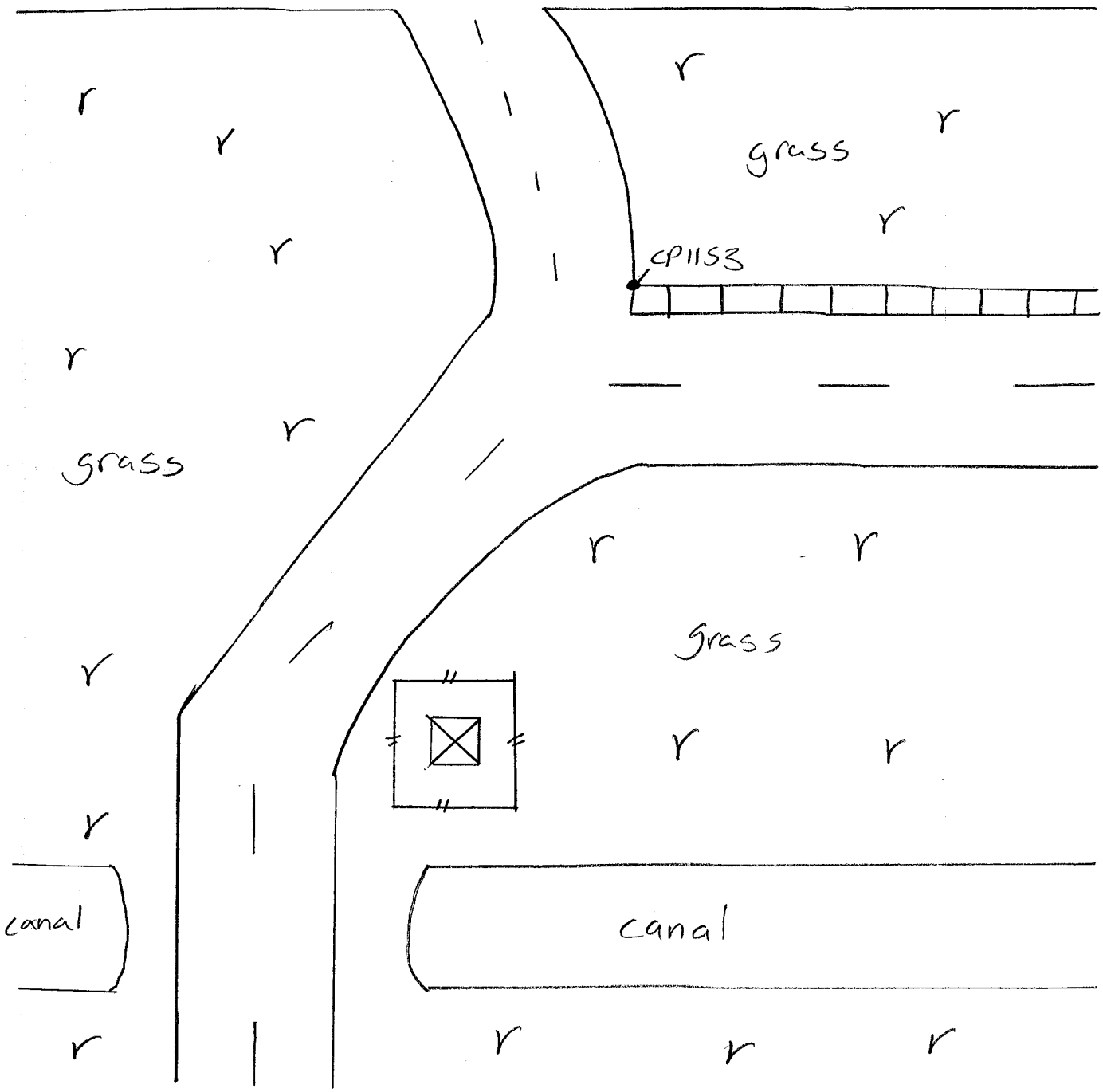
PROJECT _____

SUBJECT _____

BY _____



CP1153

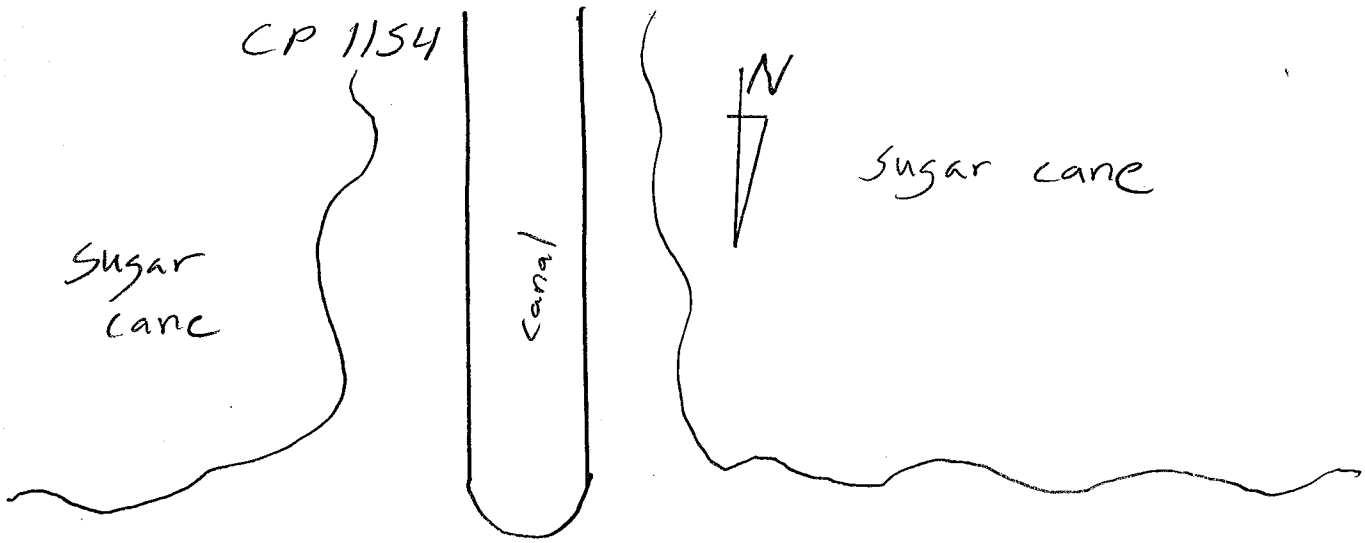


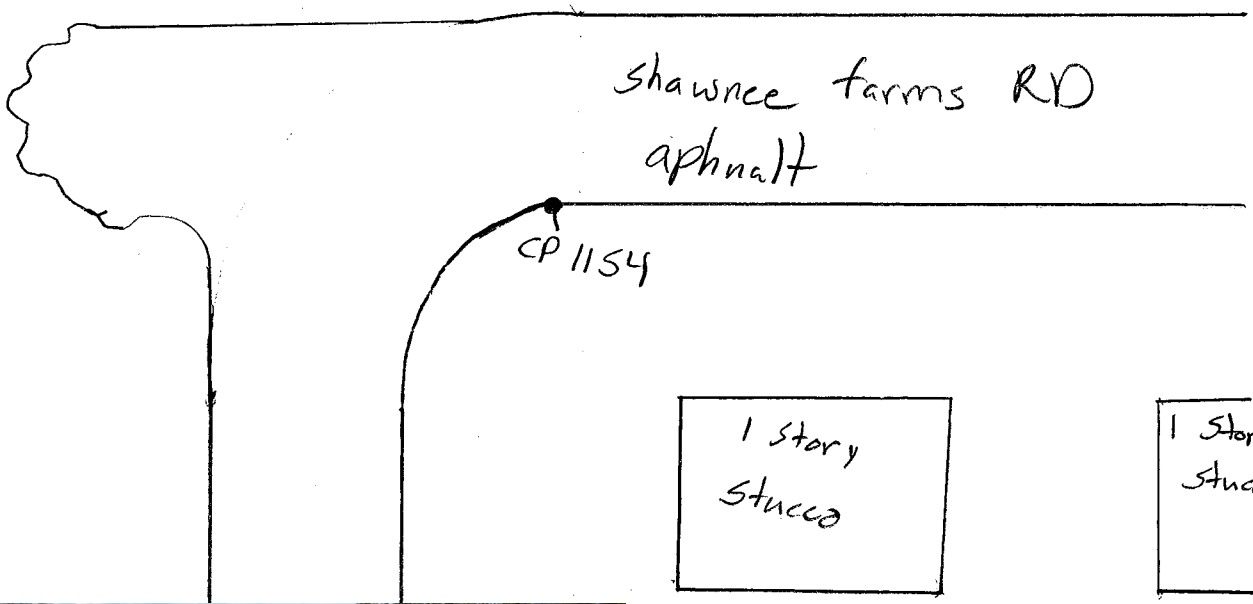
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

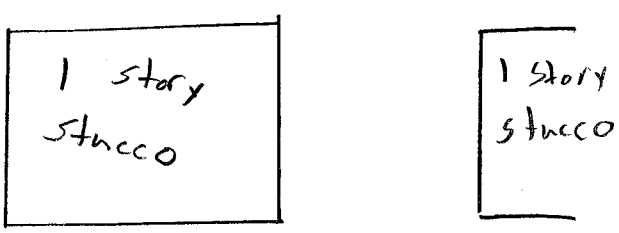
SUBJECT _____ DATE _____

BY _____ JOB NO. _____







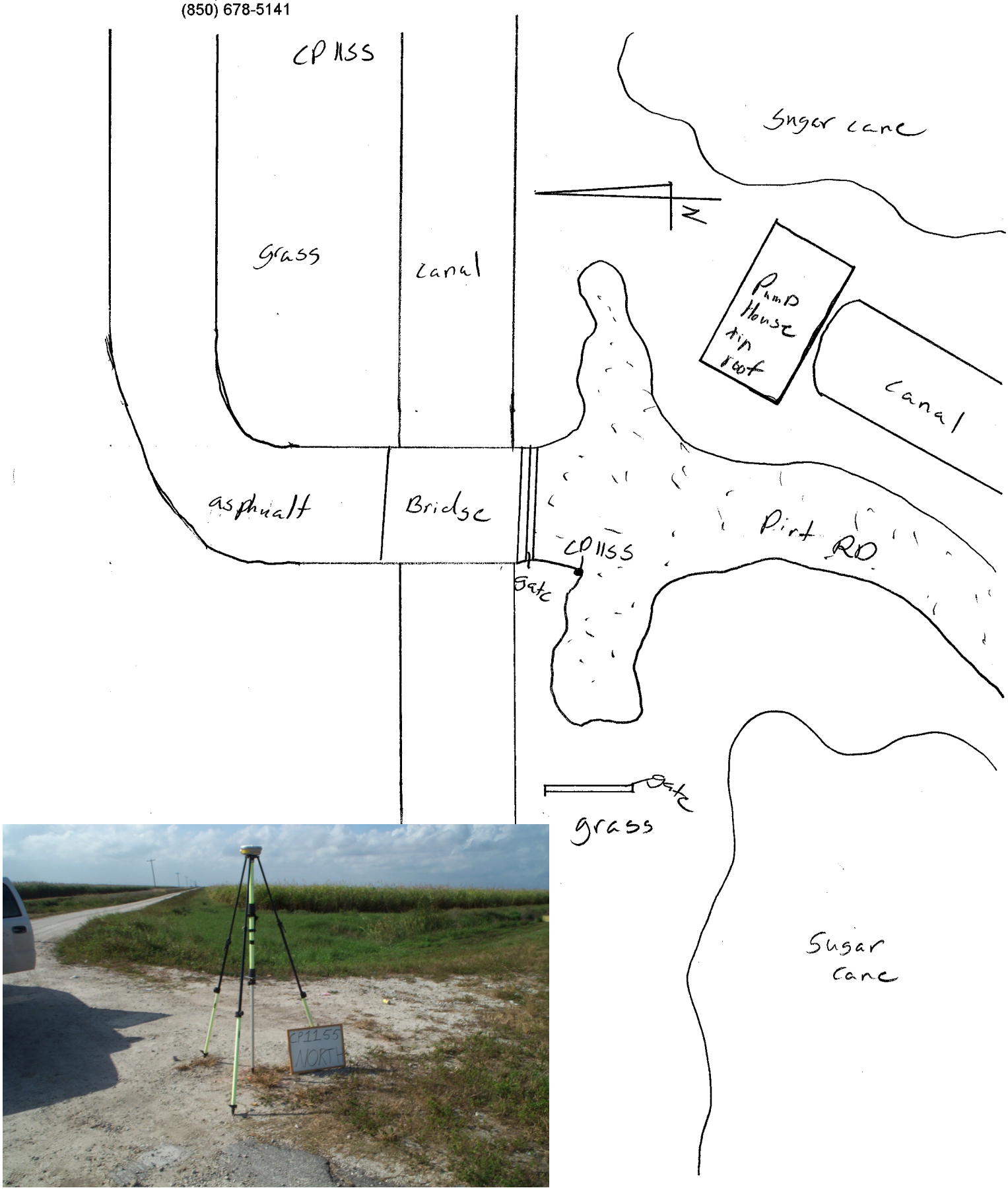


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

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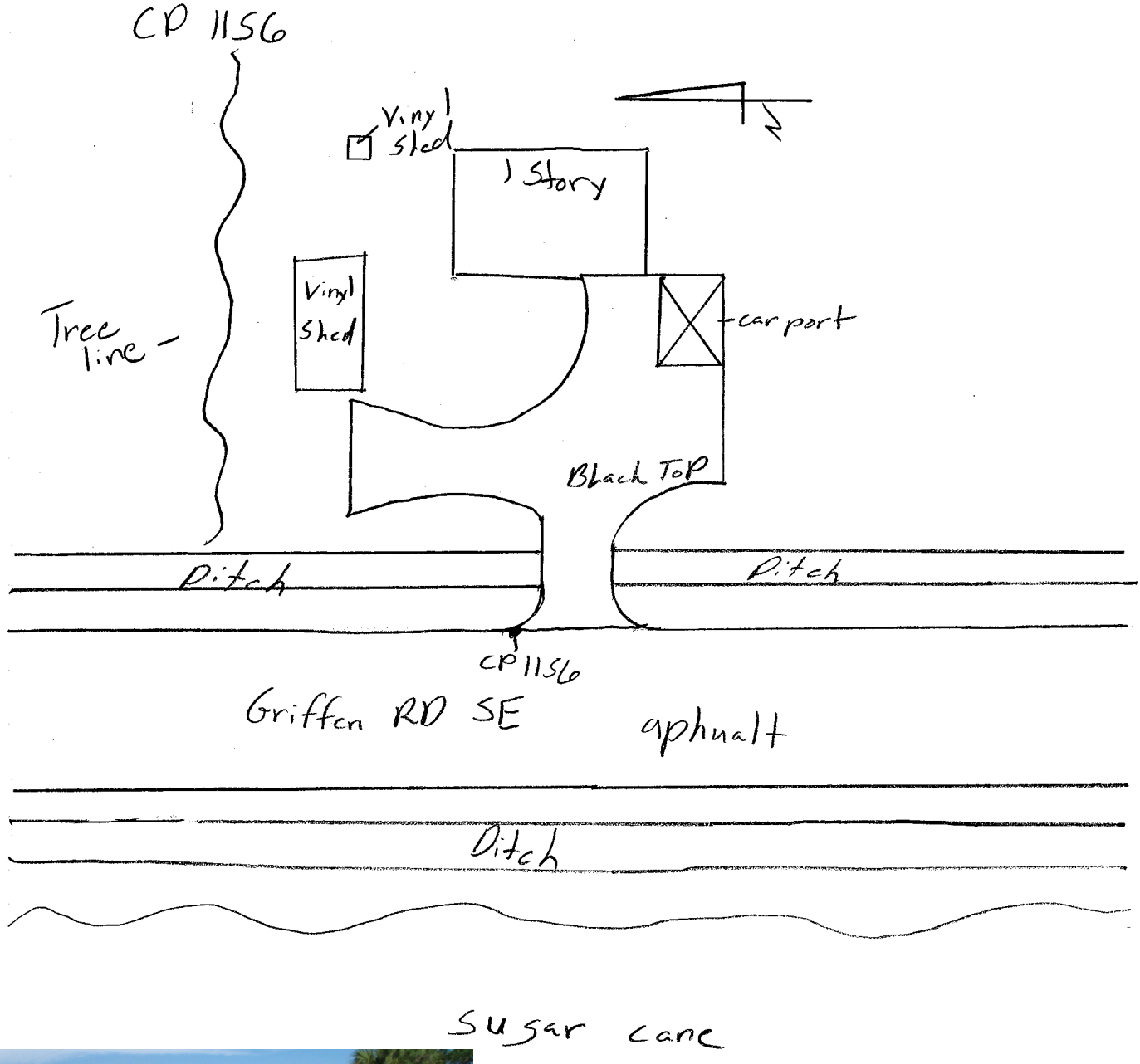




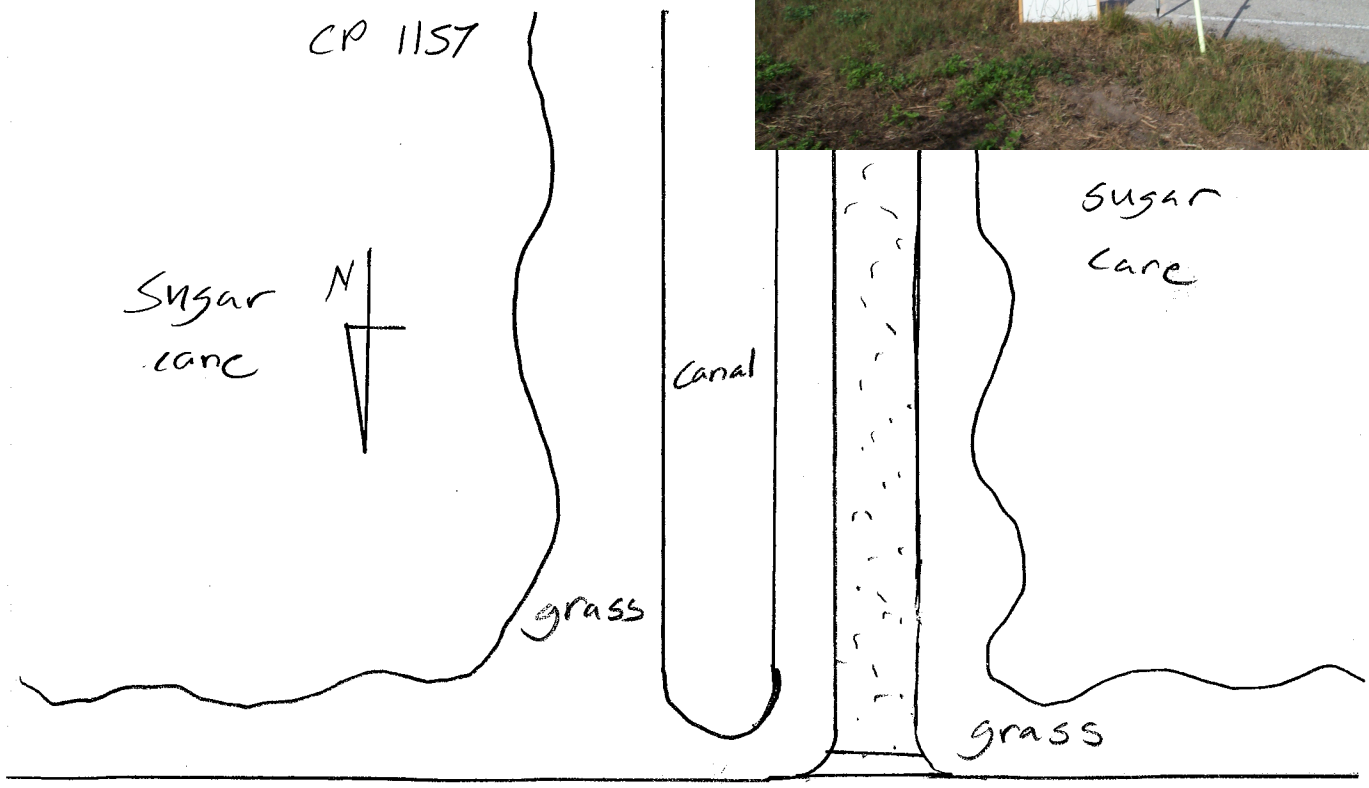
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____

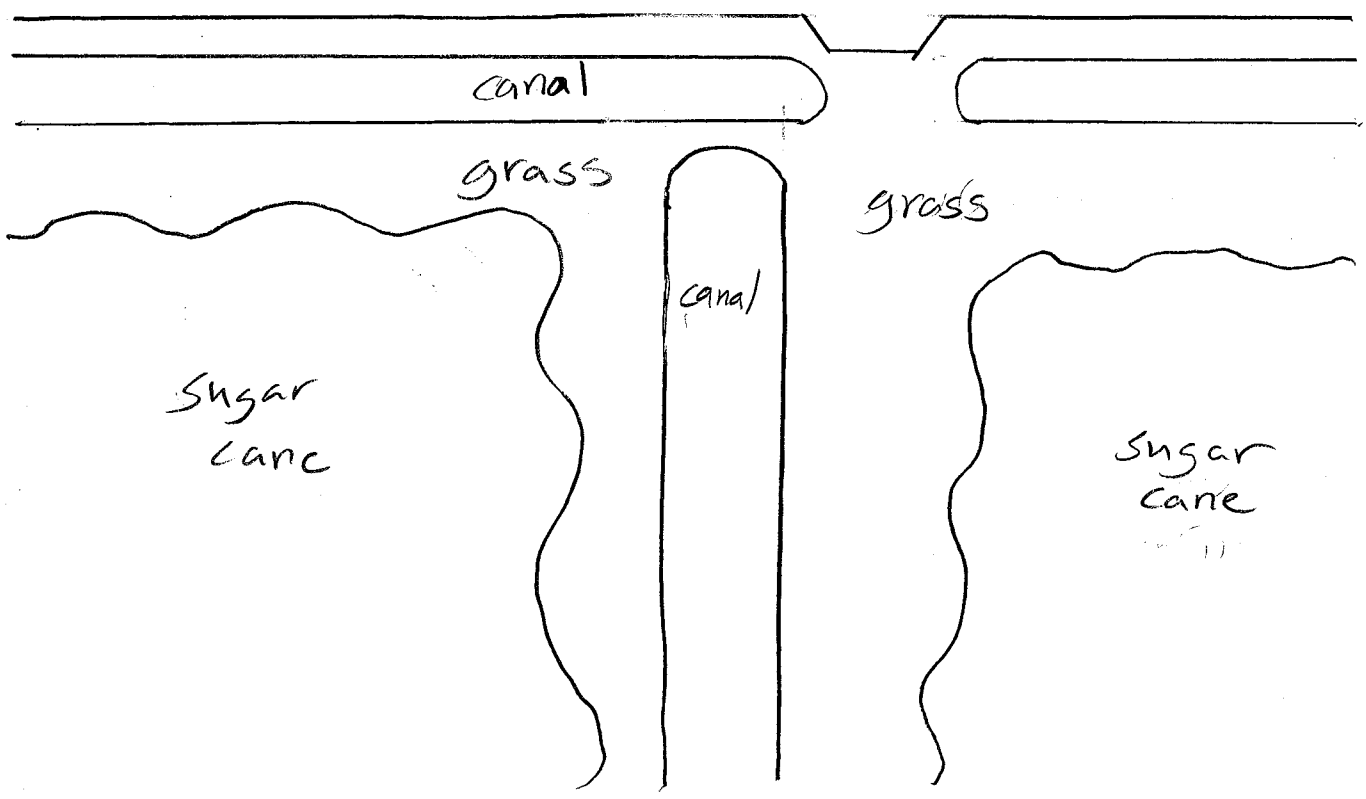
SUBJECT _____

BY _____





E county RD



GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____

SUBJECT _____

BY _____



CP 1158

N

canal

grass

Sugar cane

grass

CP1158

canal

grass

grass

canal

grass

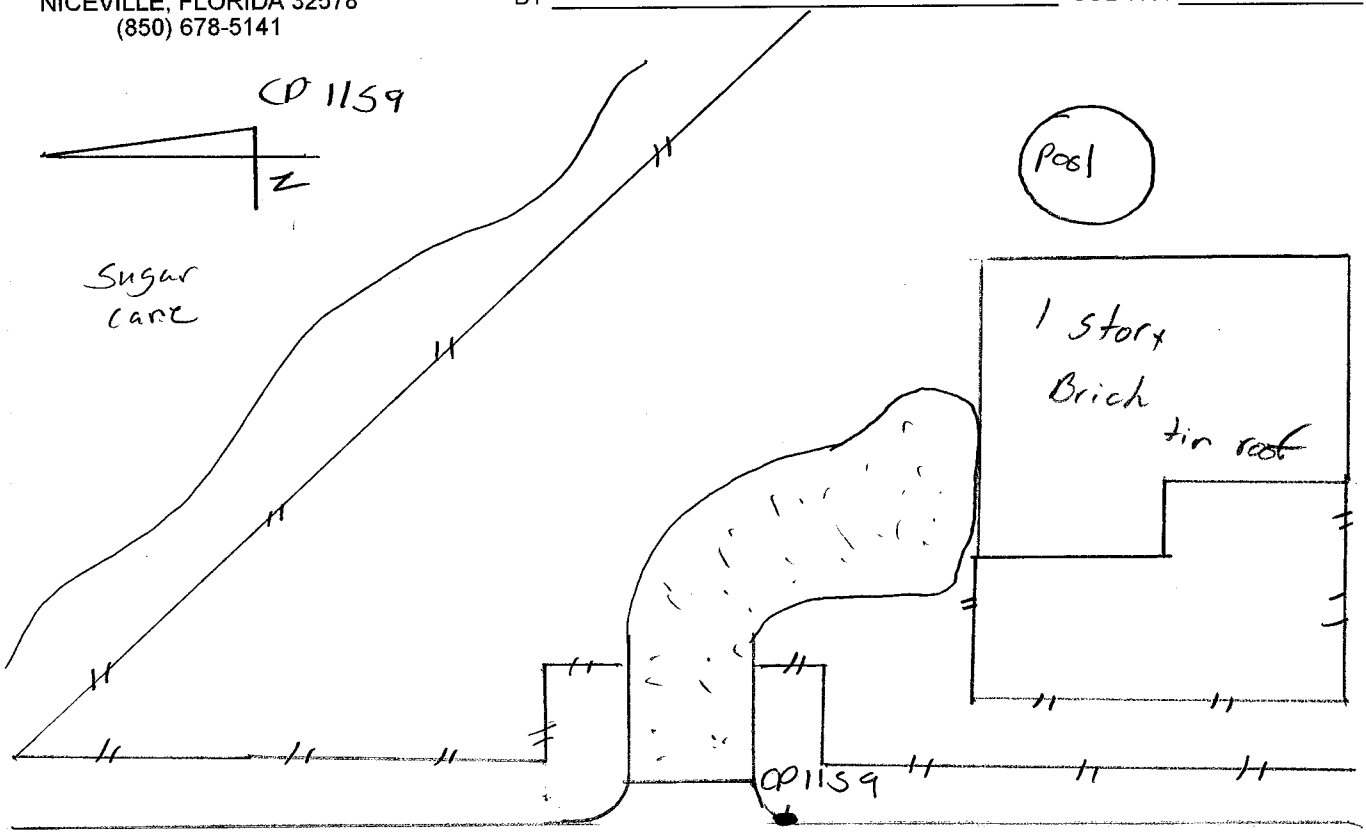
retintion Pond

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



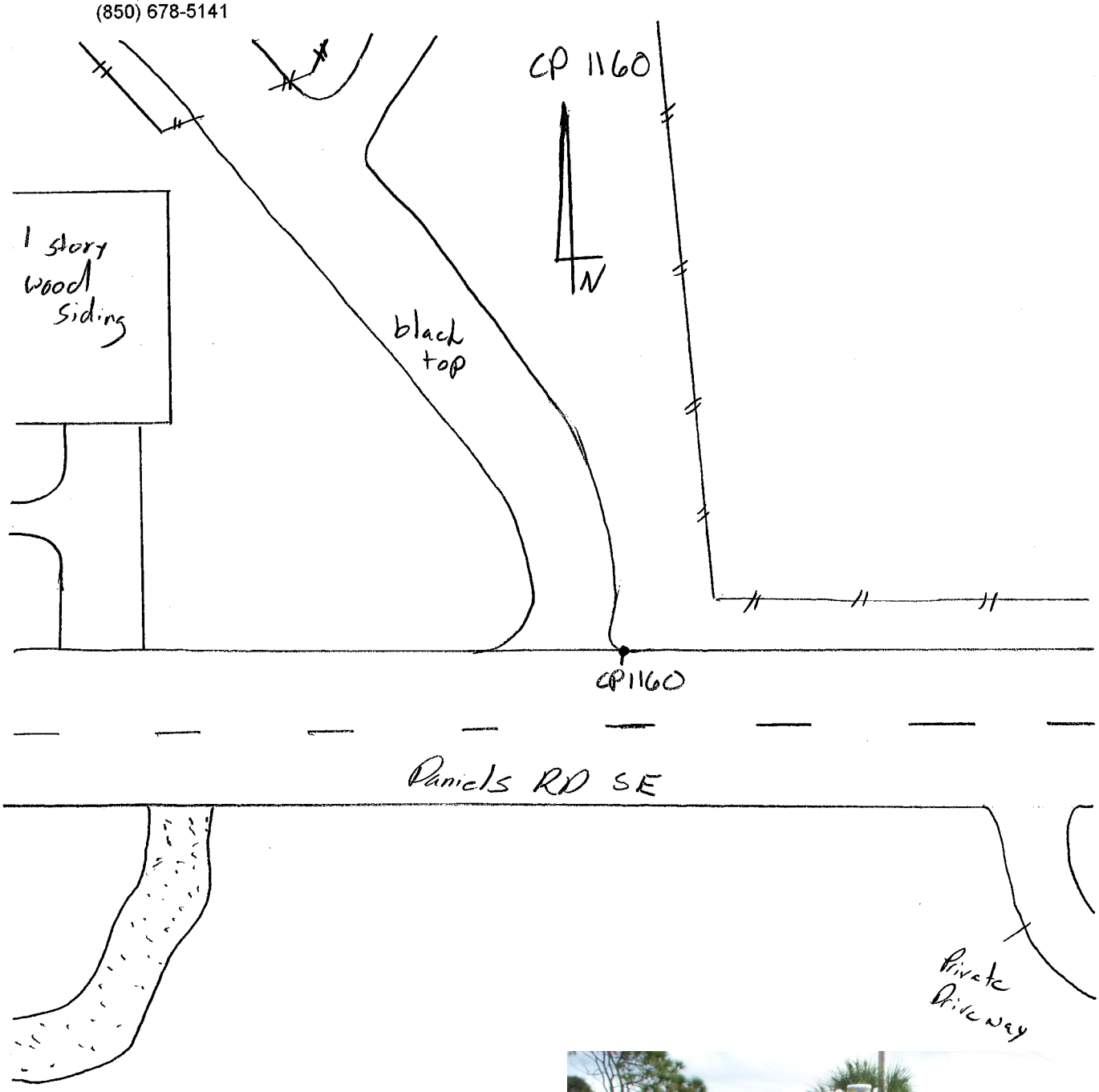


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____





GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

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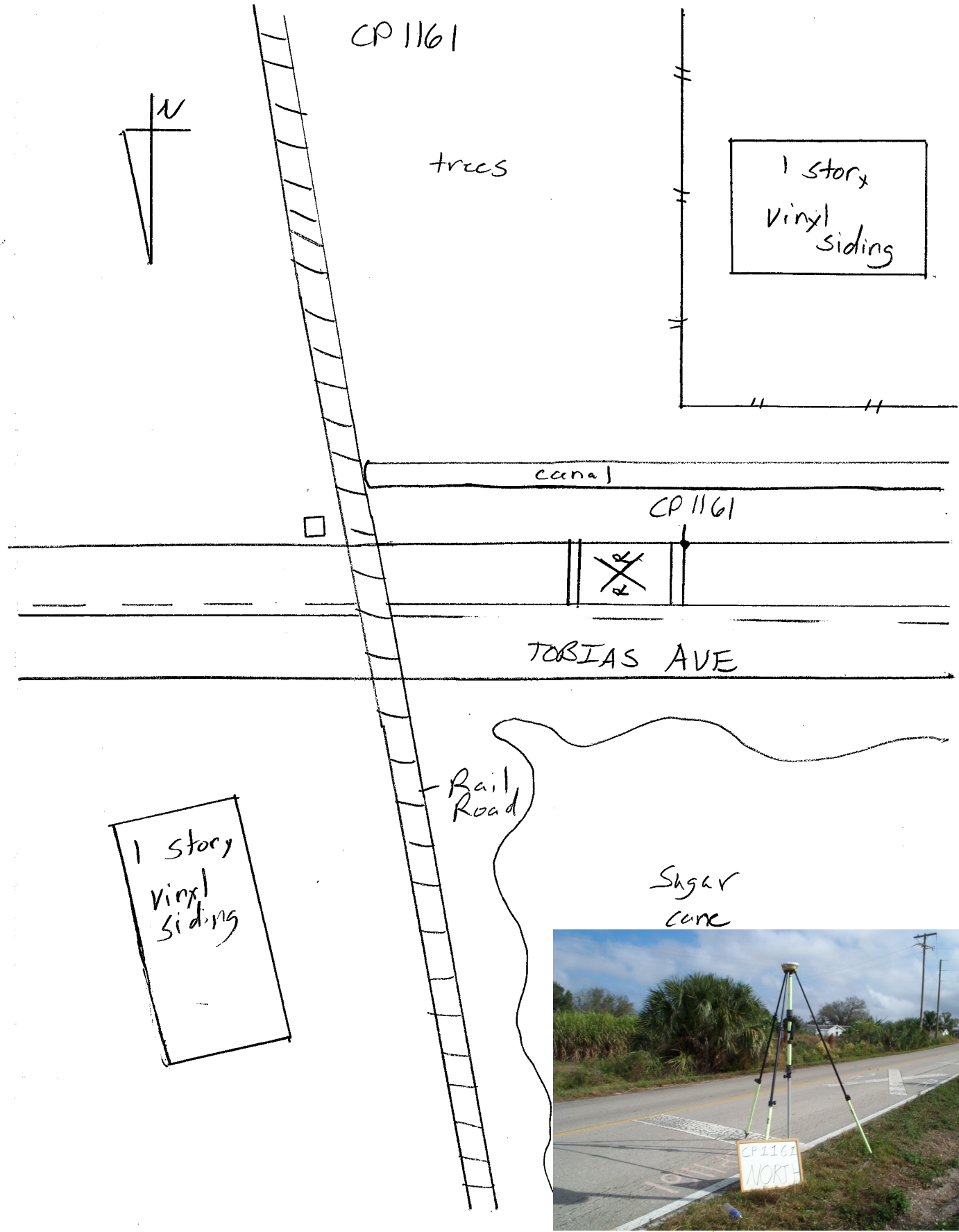

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

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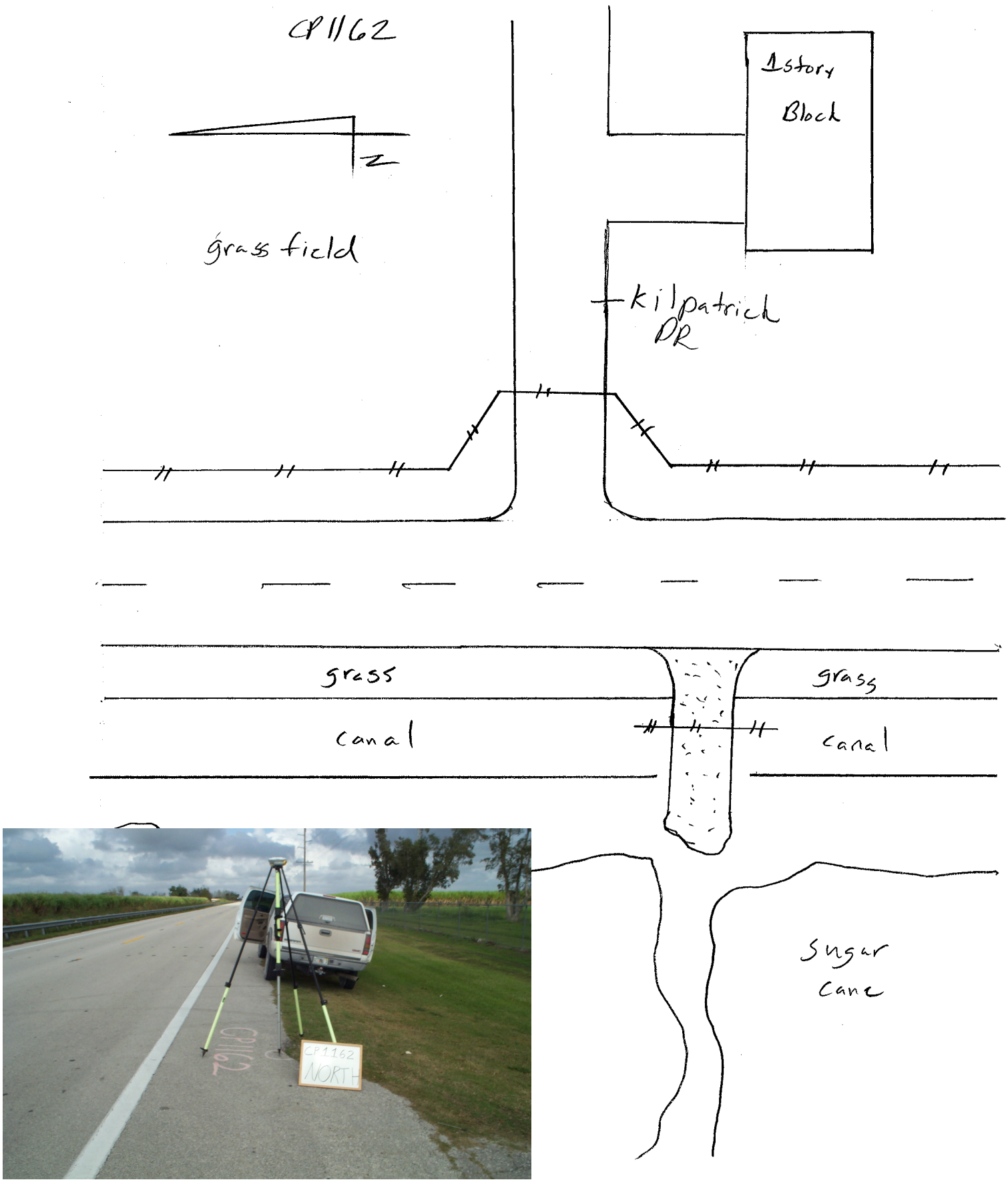
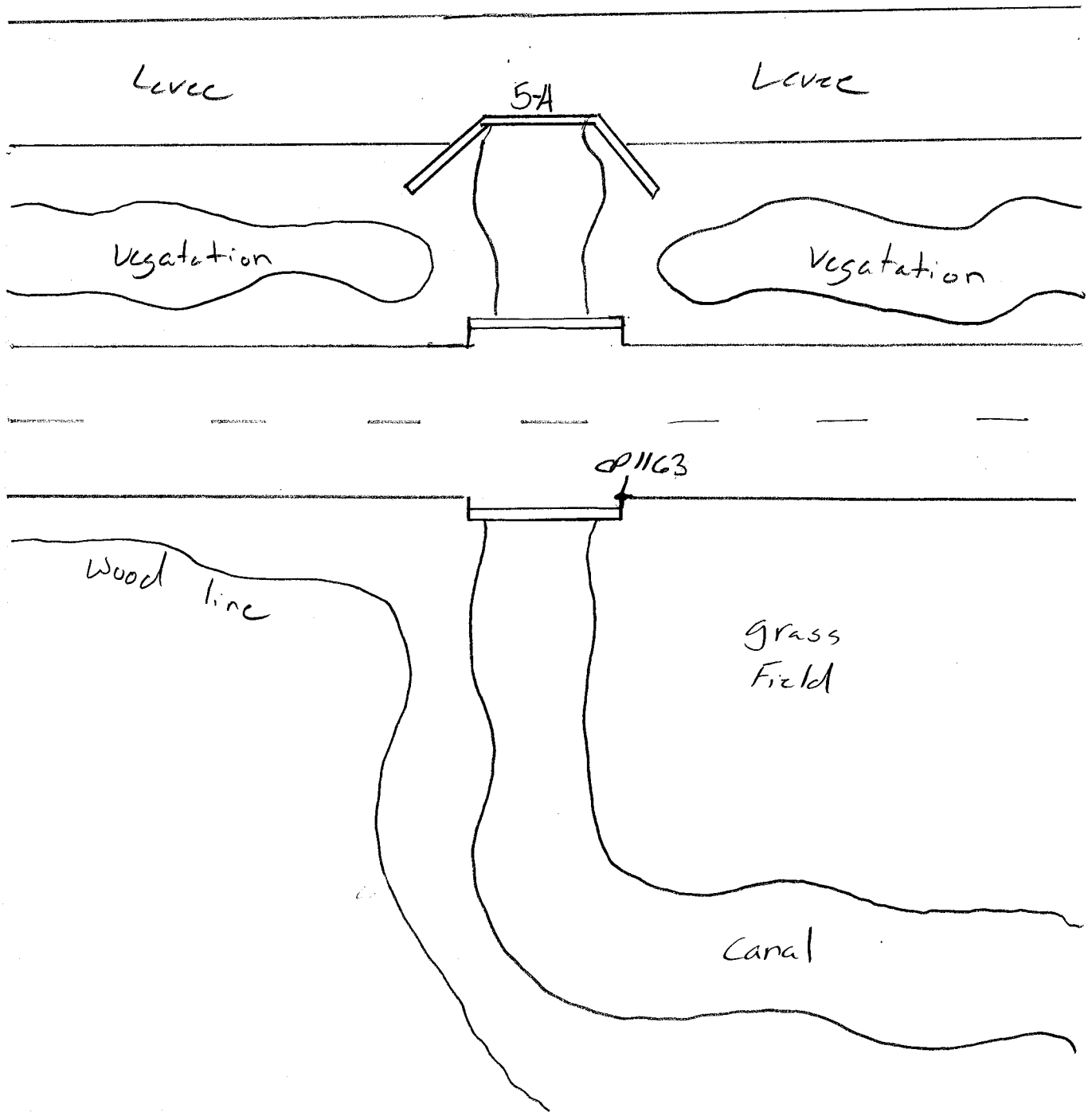


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

CP 1163

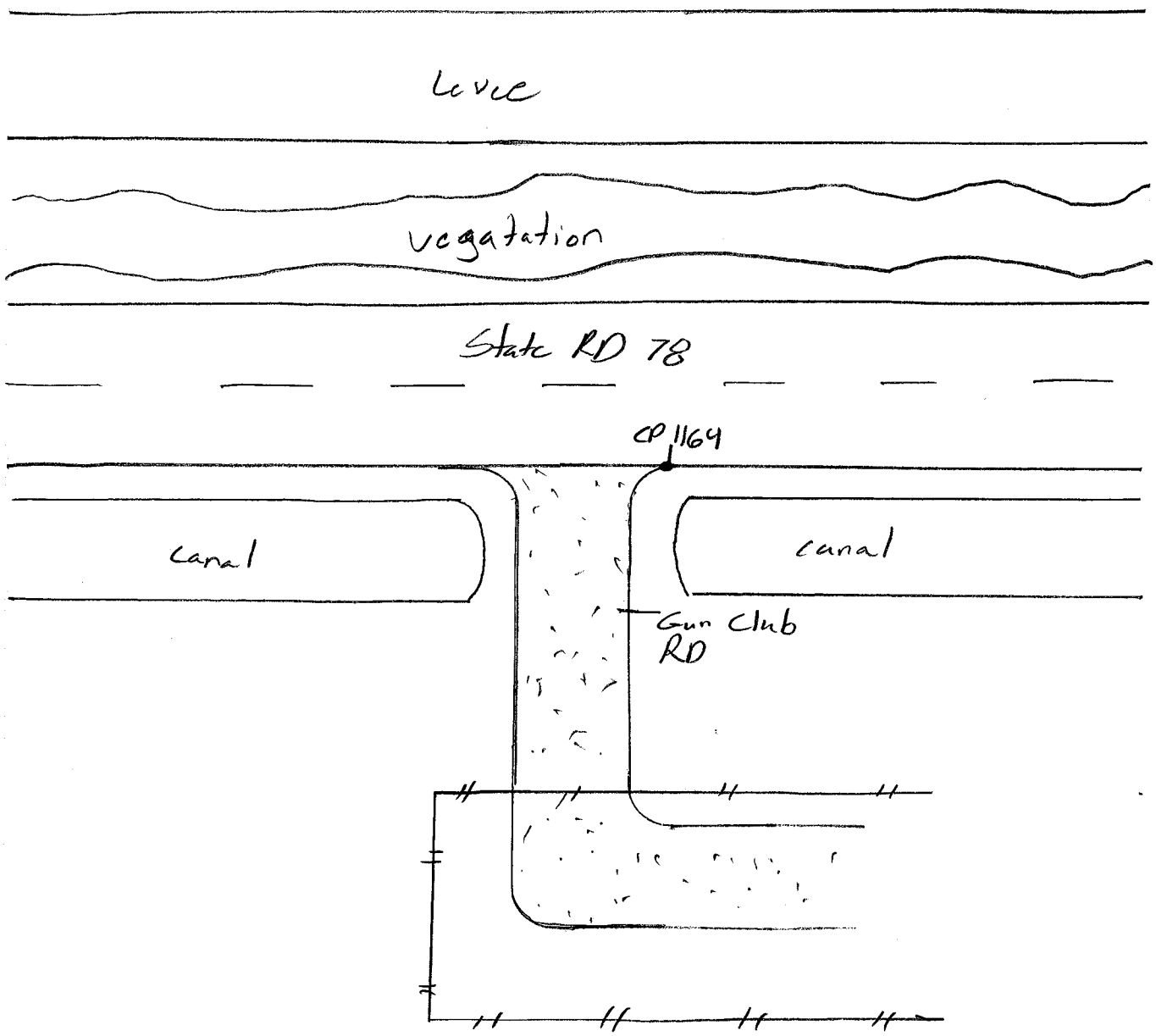




GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

CP 1164

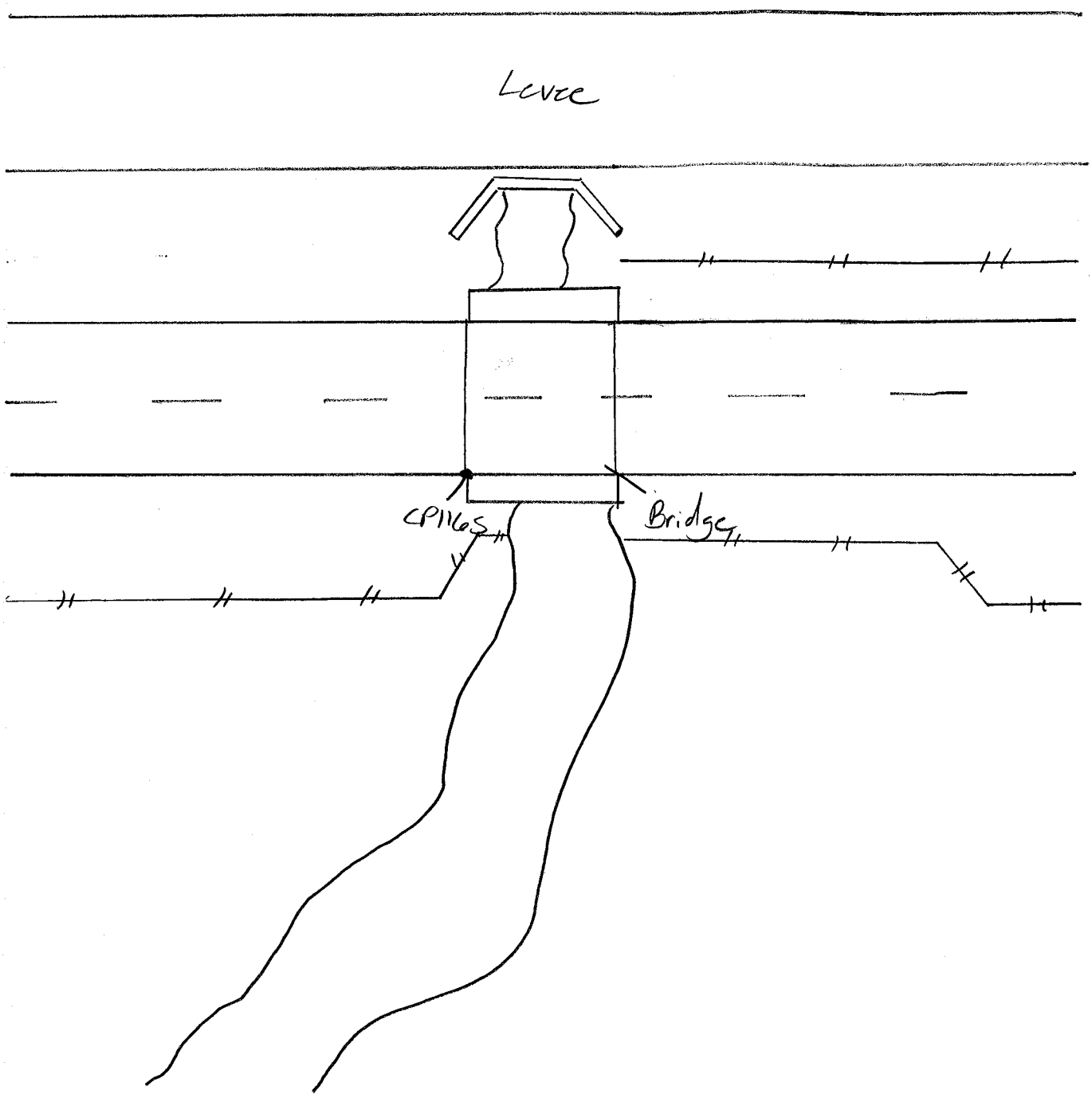




GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

CP 1165



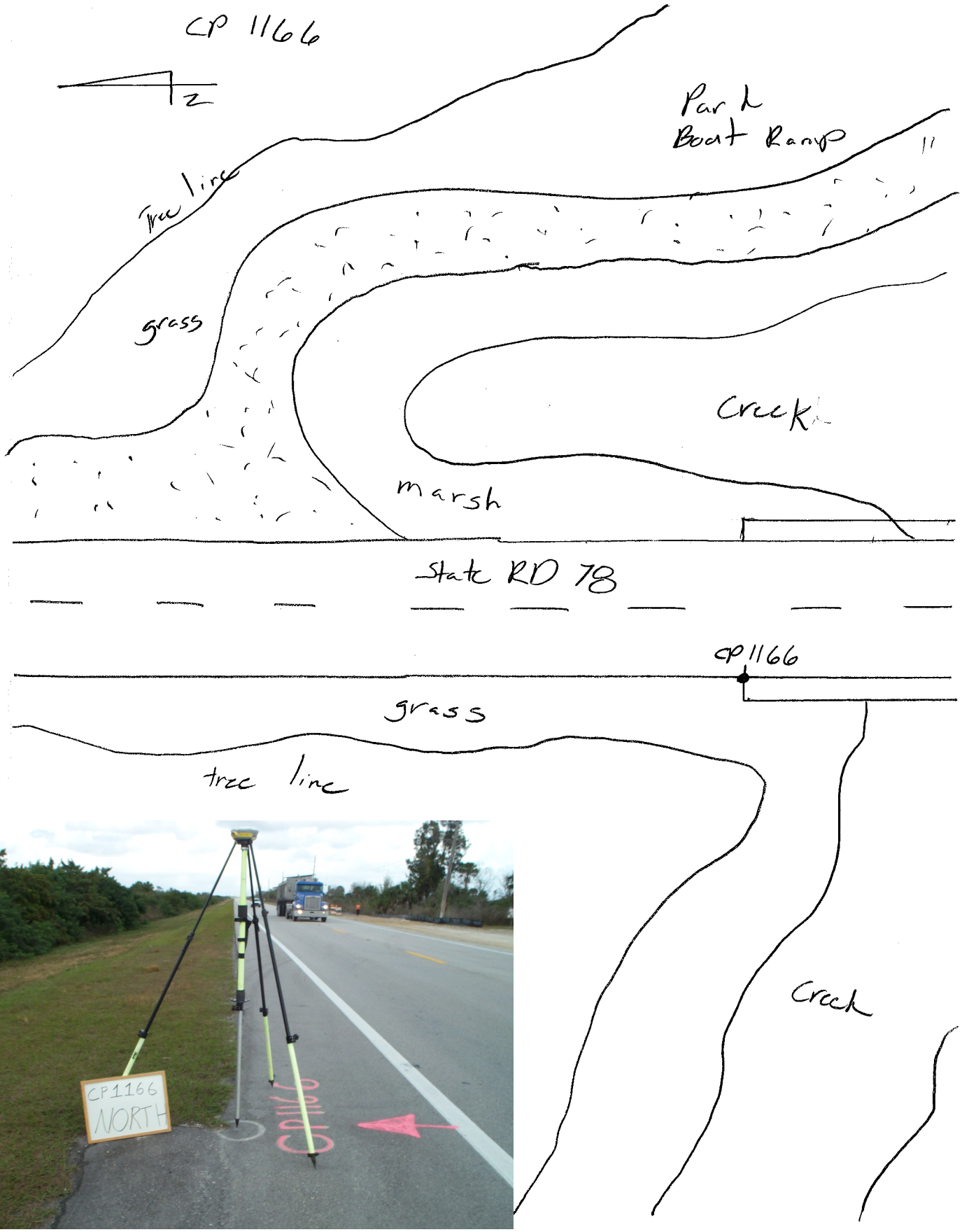


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

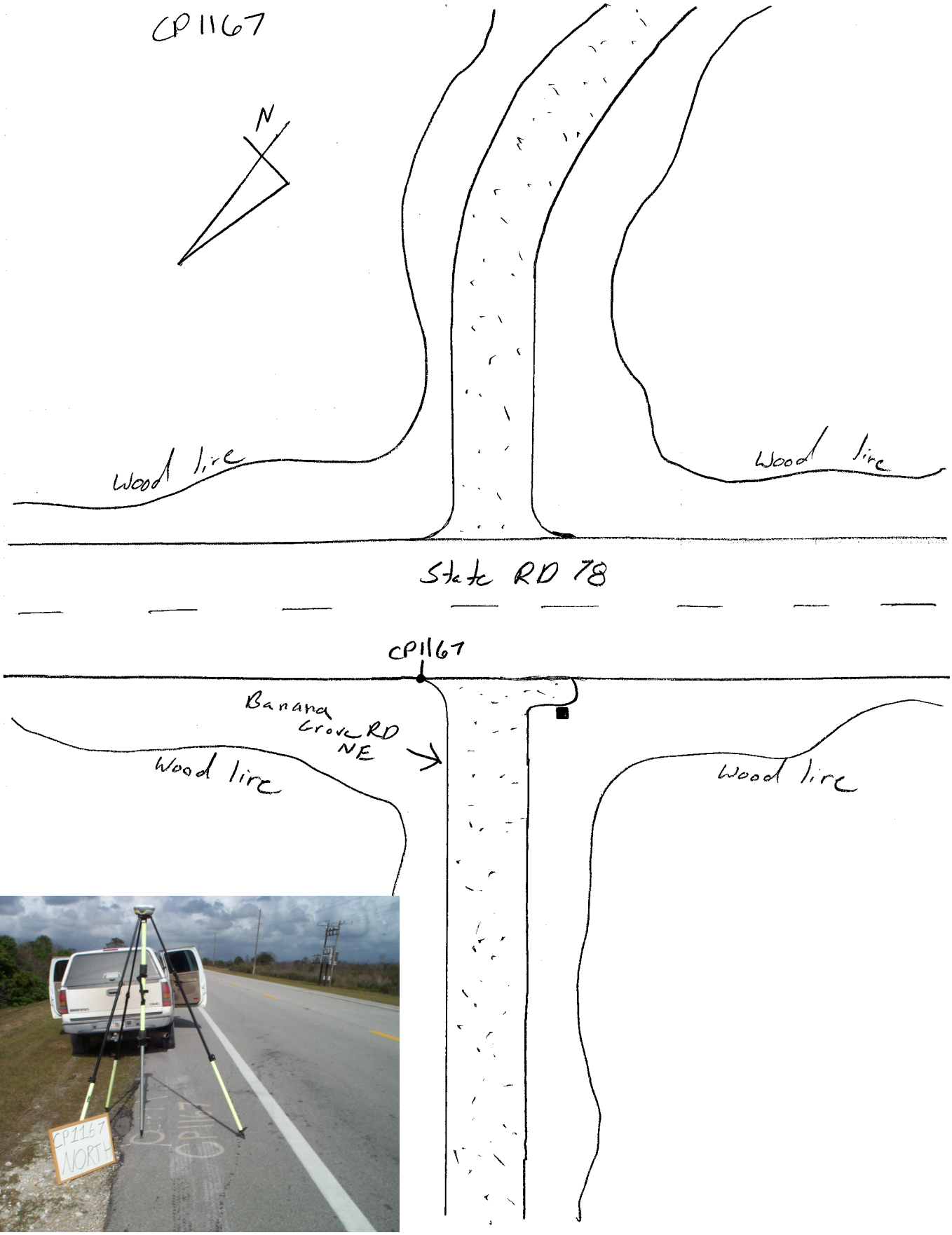


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJEC

SUBJEC

BY ____

CP 1168



N

trees and shrubs

tree line

State RD 78

Bridge

CP 1168

Fishcating Creek

treeline

tree line

Island

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJ

SUBJ

BY



CP 1169

N

grass Field

tree line

tree line

State RD 78

CP1169

Private Driveway

Branthoover LN NW

Palm trees

tin carport

Concrete

Big yellow tin BLDG

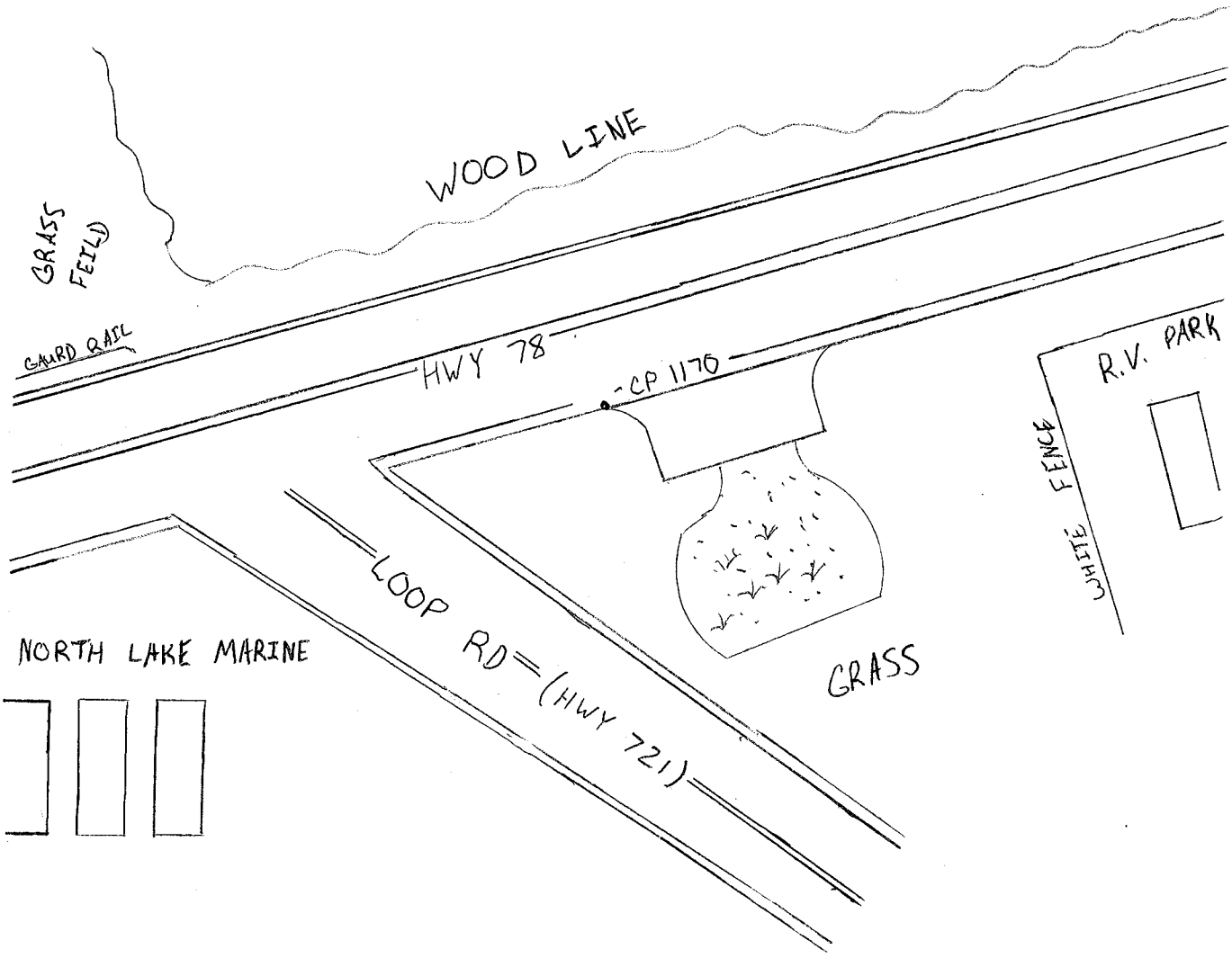
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT ____
SUBJECT ____
BY ____

CP 1170



N



GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

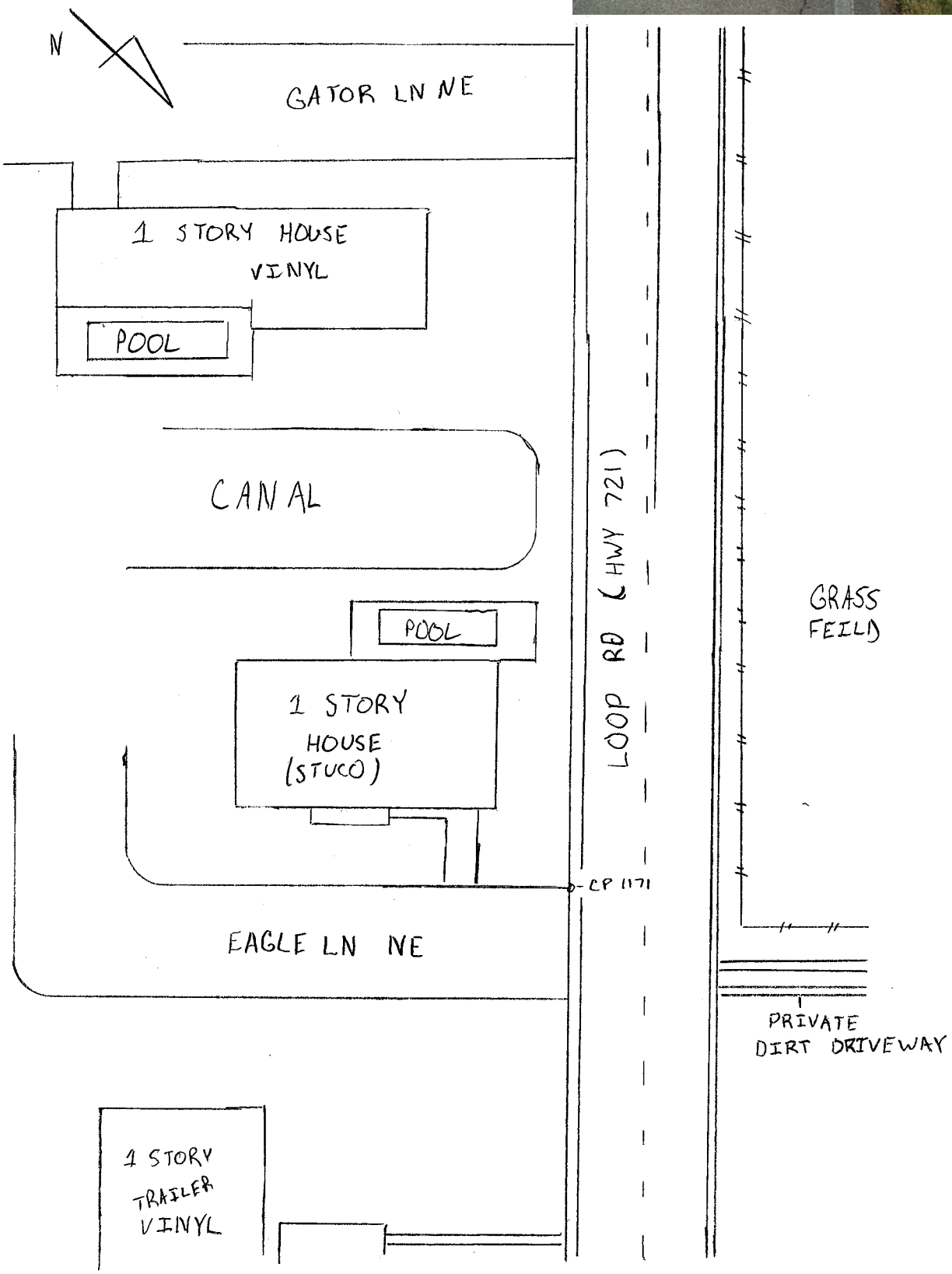
PROJECT _____

SUBJECT _____

BY _____



CP 1171



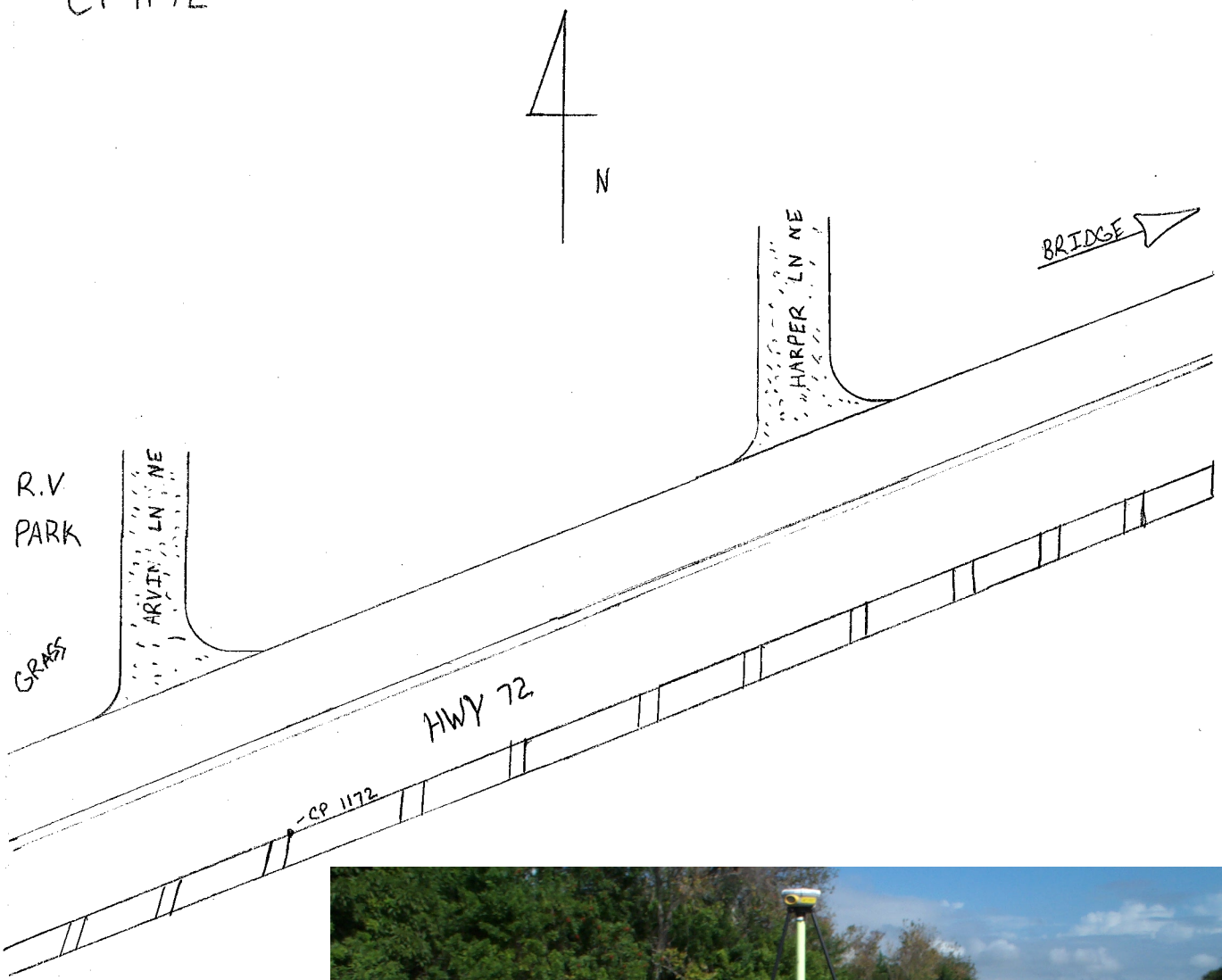
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1172





GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

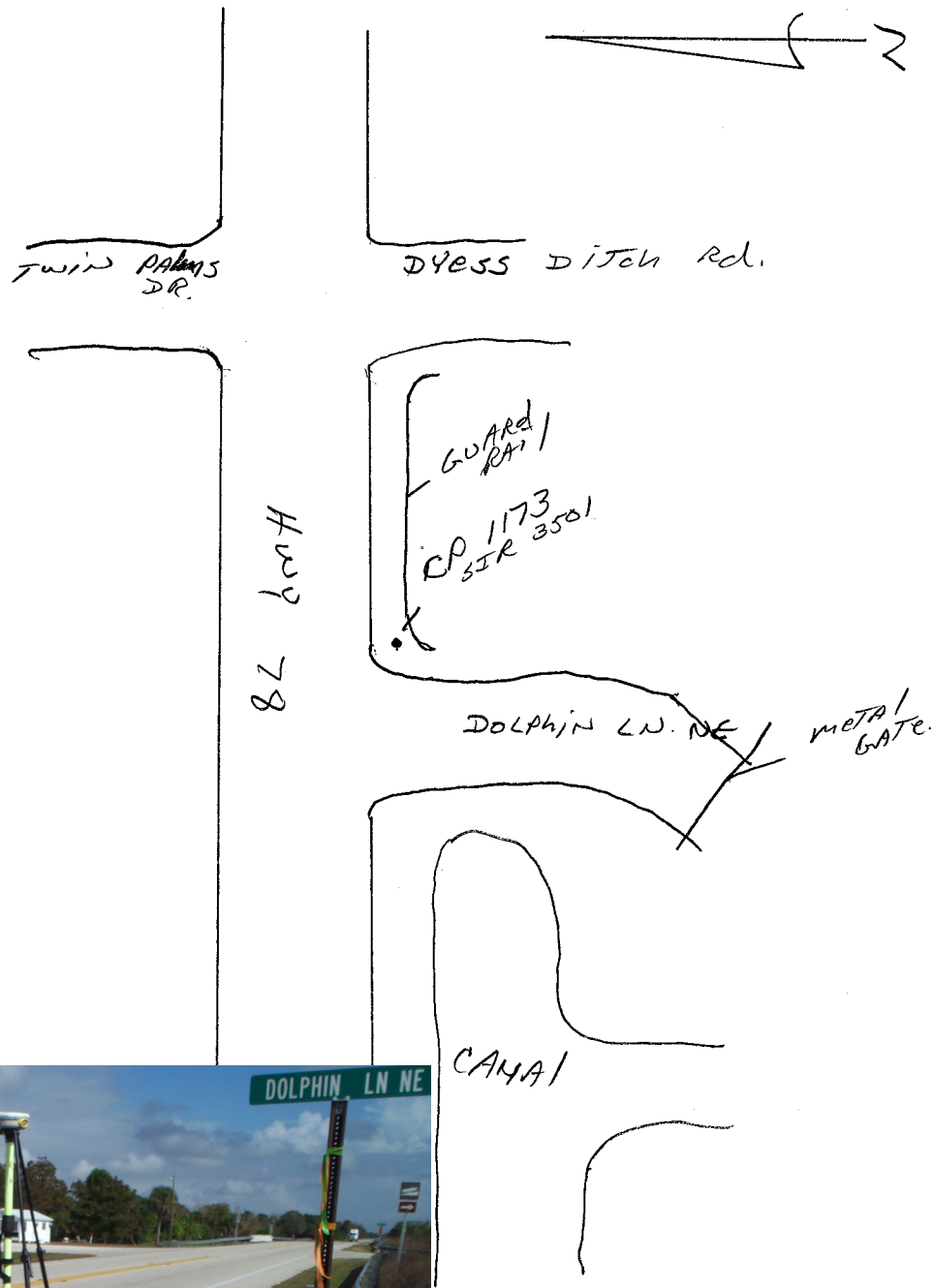
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1173





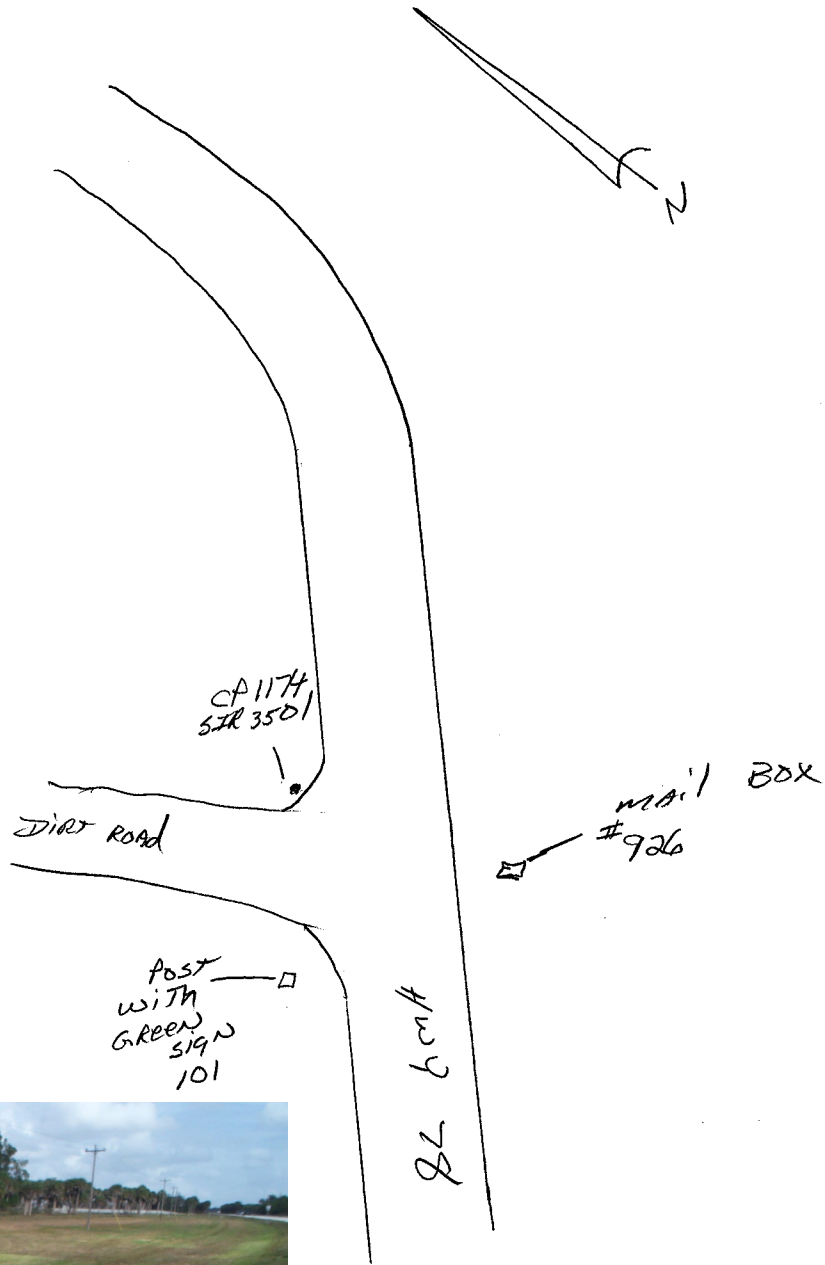
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1174





GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

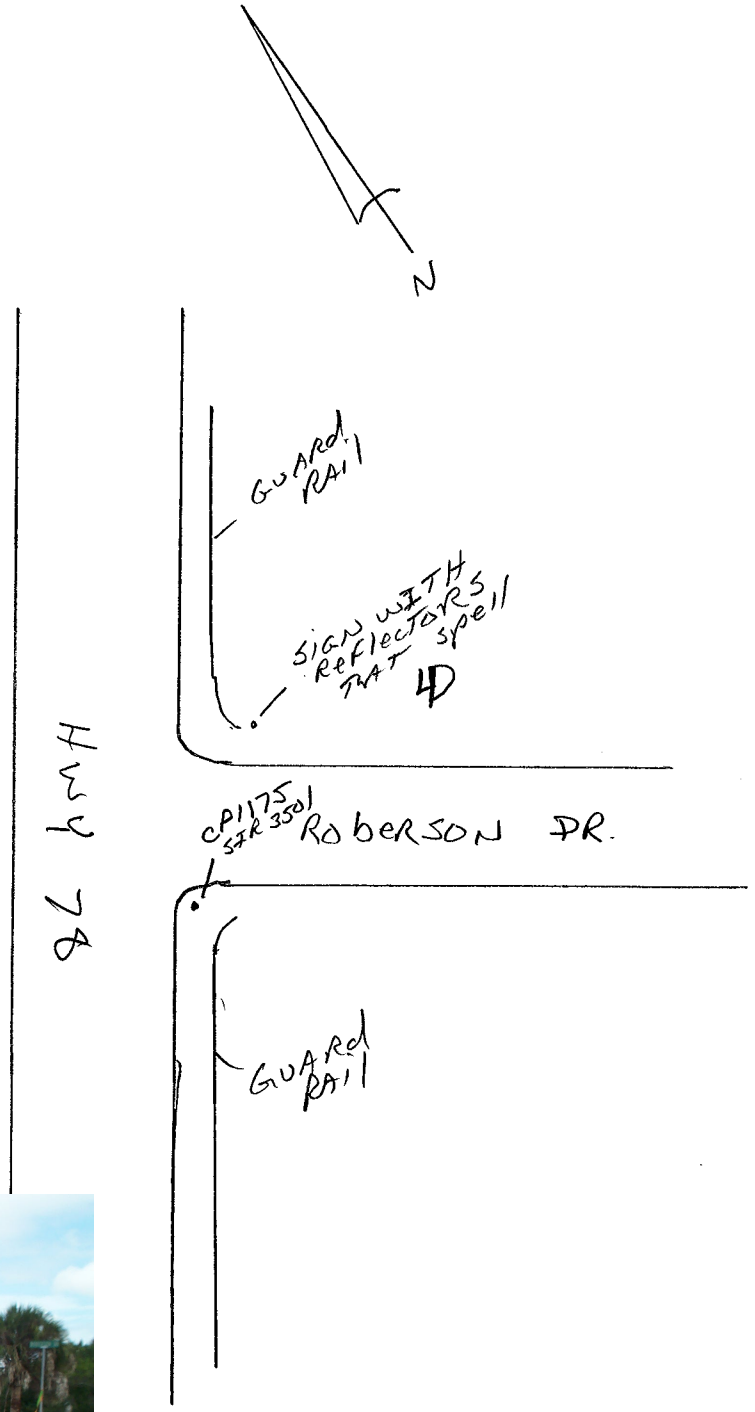
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1175





GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1176



N

Hwy 78

DIRT
GRAVEL

Green metal Building

GUSTIN, COTHERN & TUCKER, IN
ENGINEERS / PLANNERS / SURVE
NICEVILLE, FLORIDA 32578
(850) 678-5141

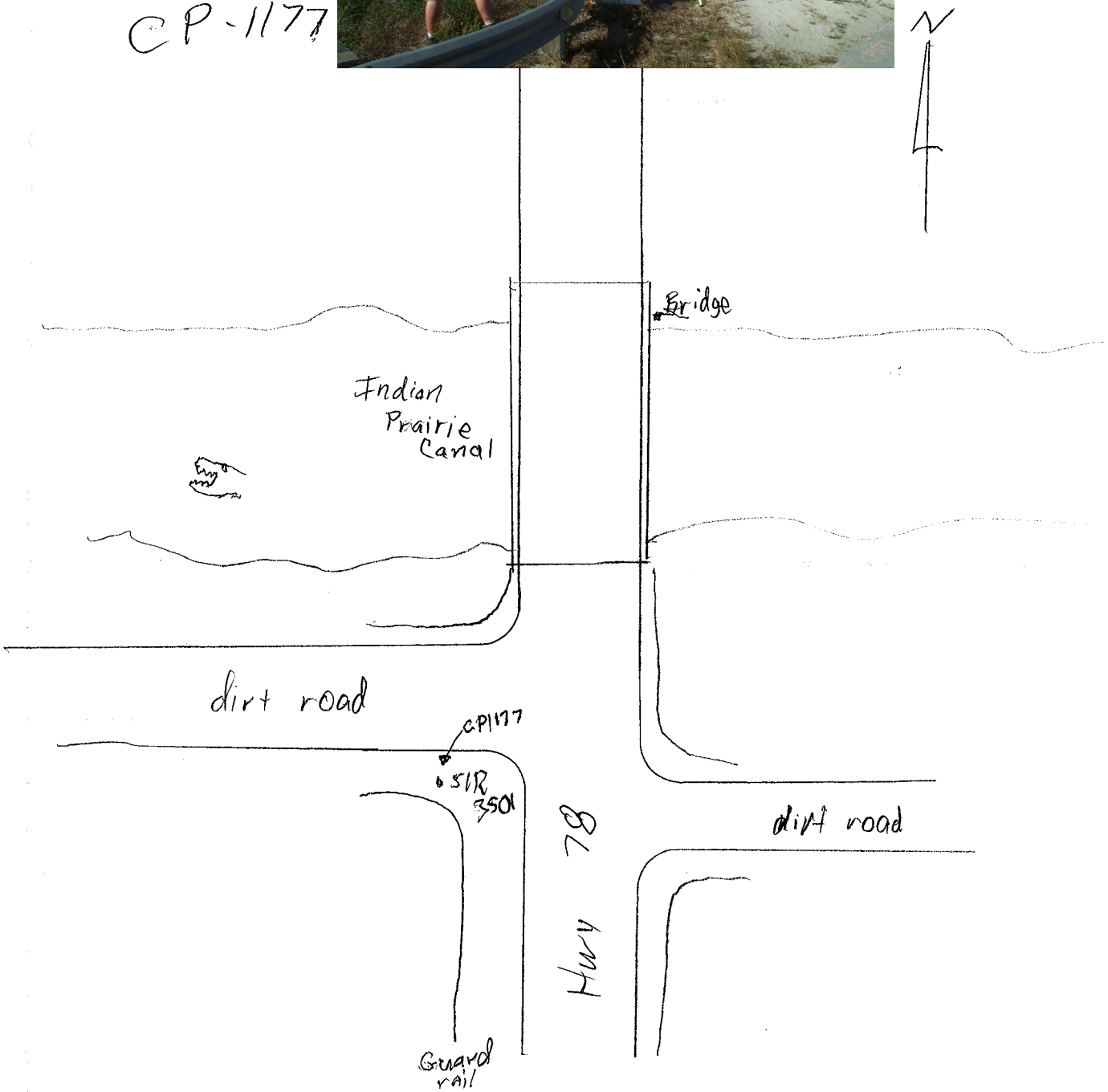
SHEET _____ OF _____

DATE _____

JOB NO. _____



CP-1177



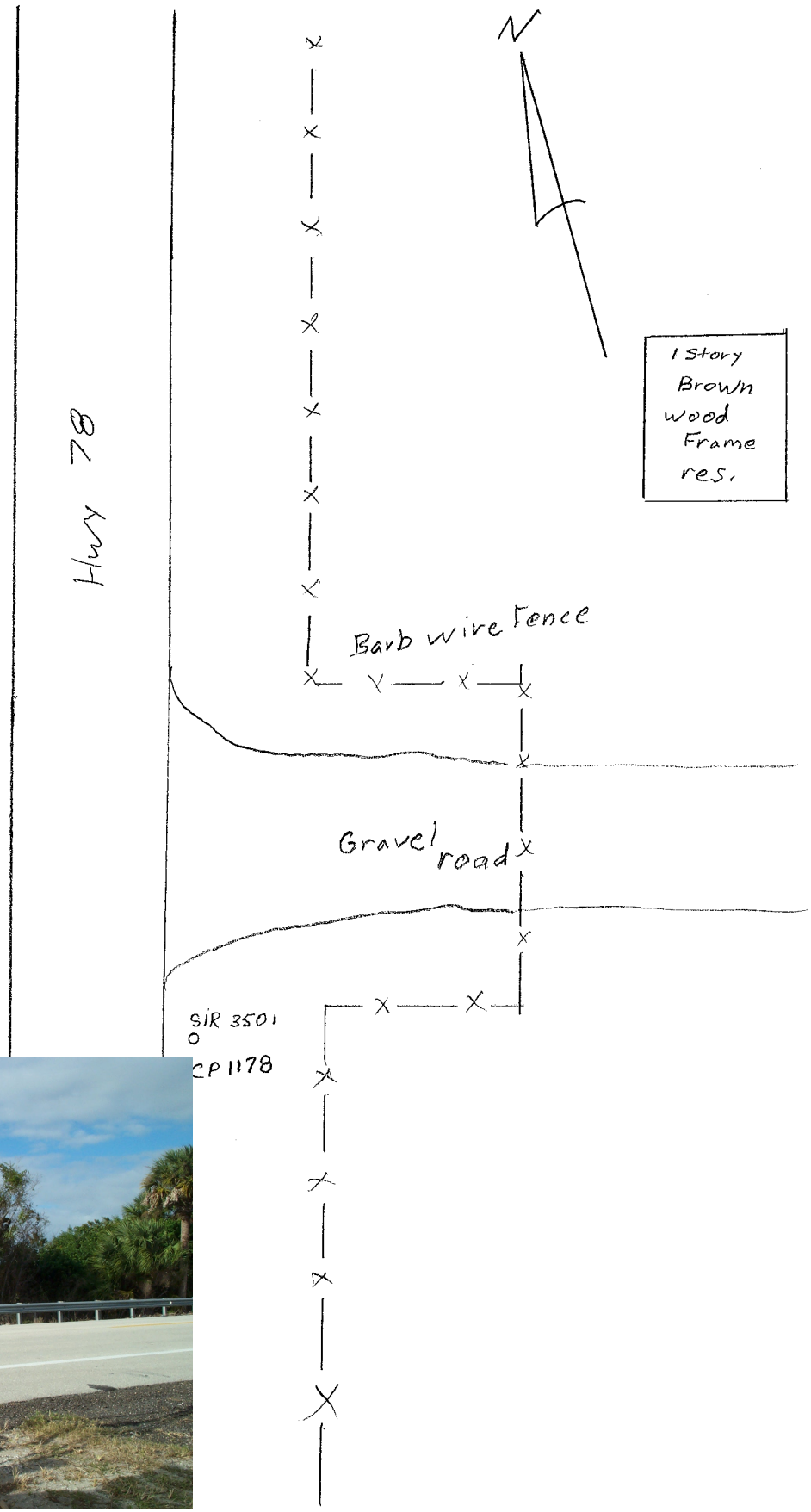
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP-1178



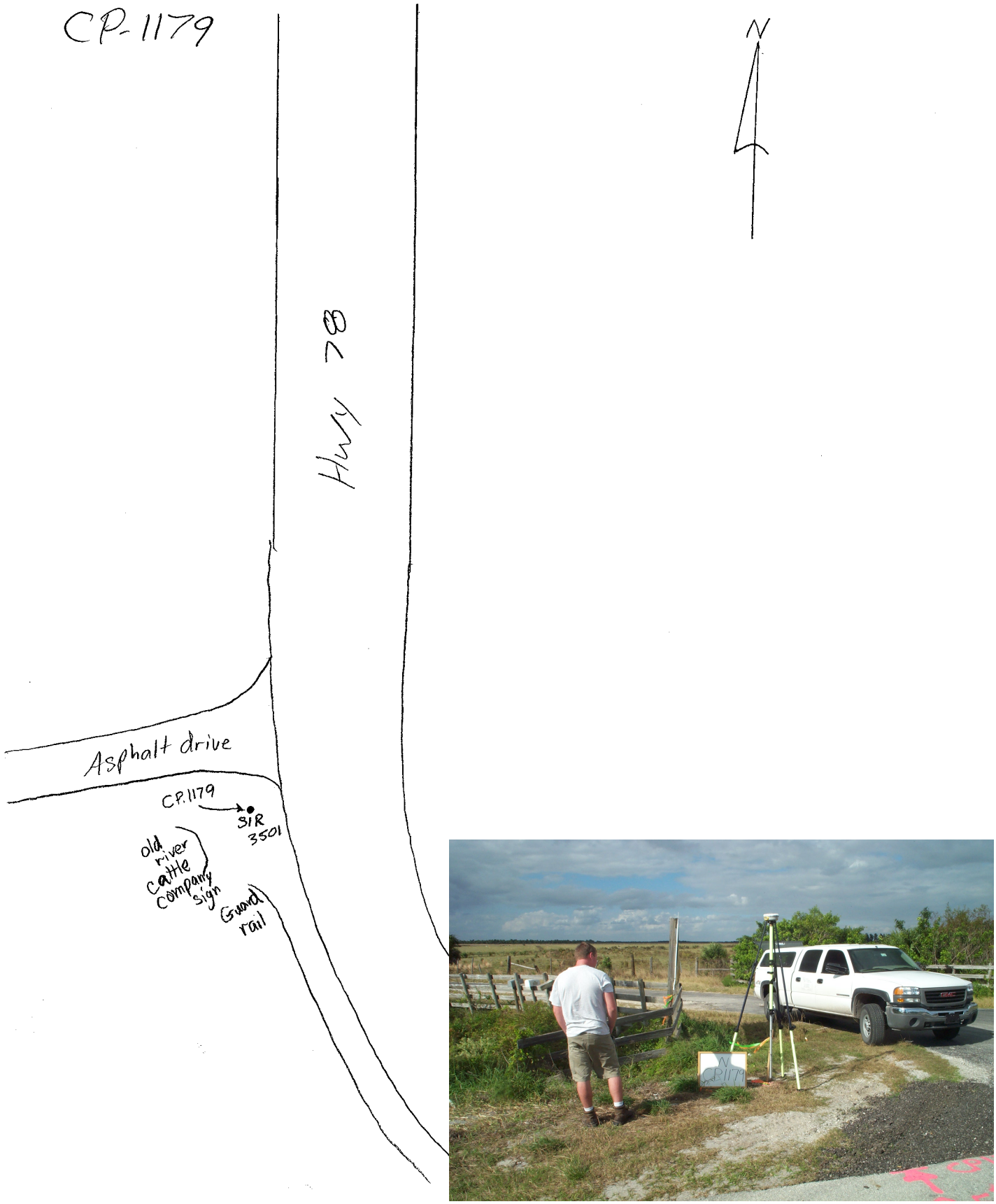


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP-1180



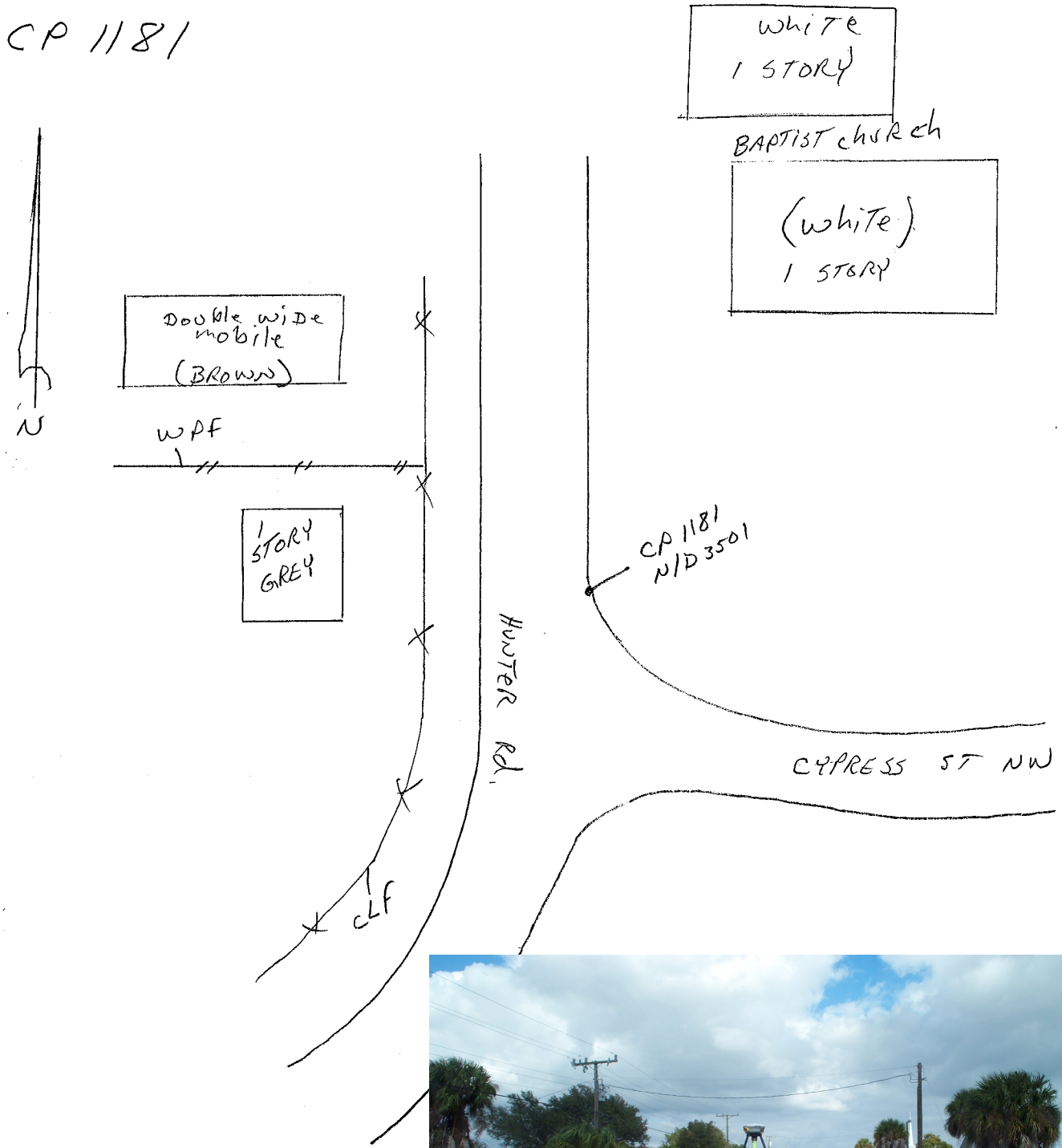
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1181





GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

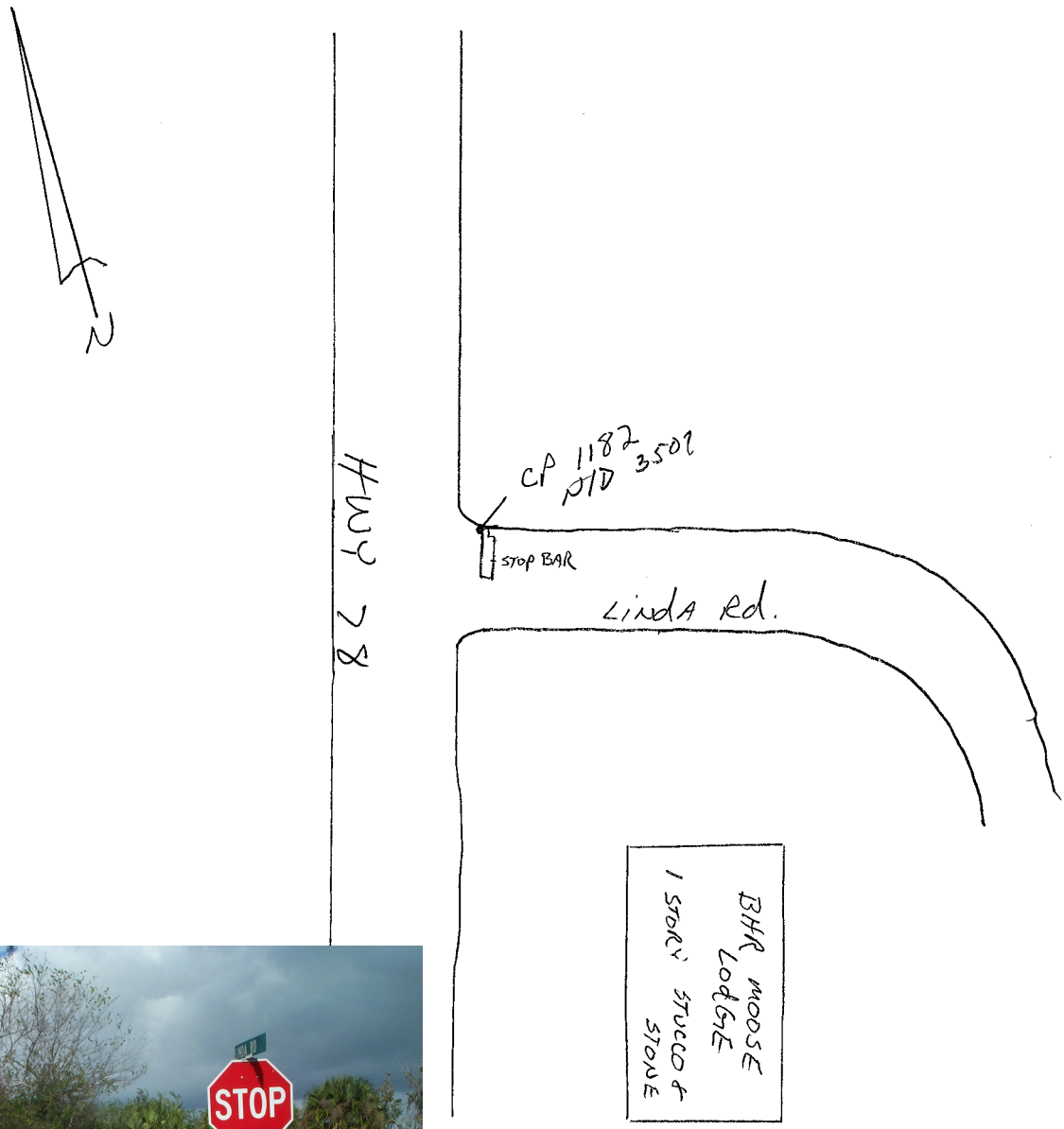
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1182





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ENGINEERS / PLANNERS / SURVEYORS
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(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP-1183





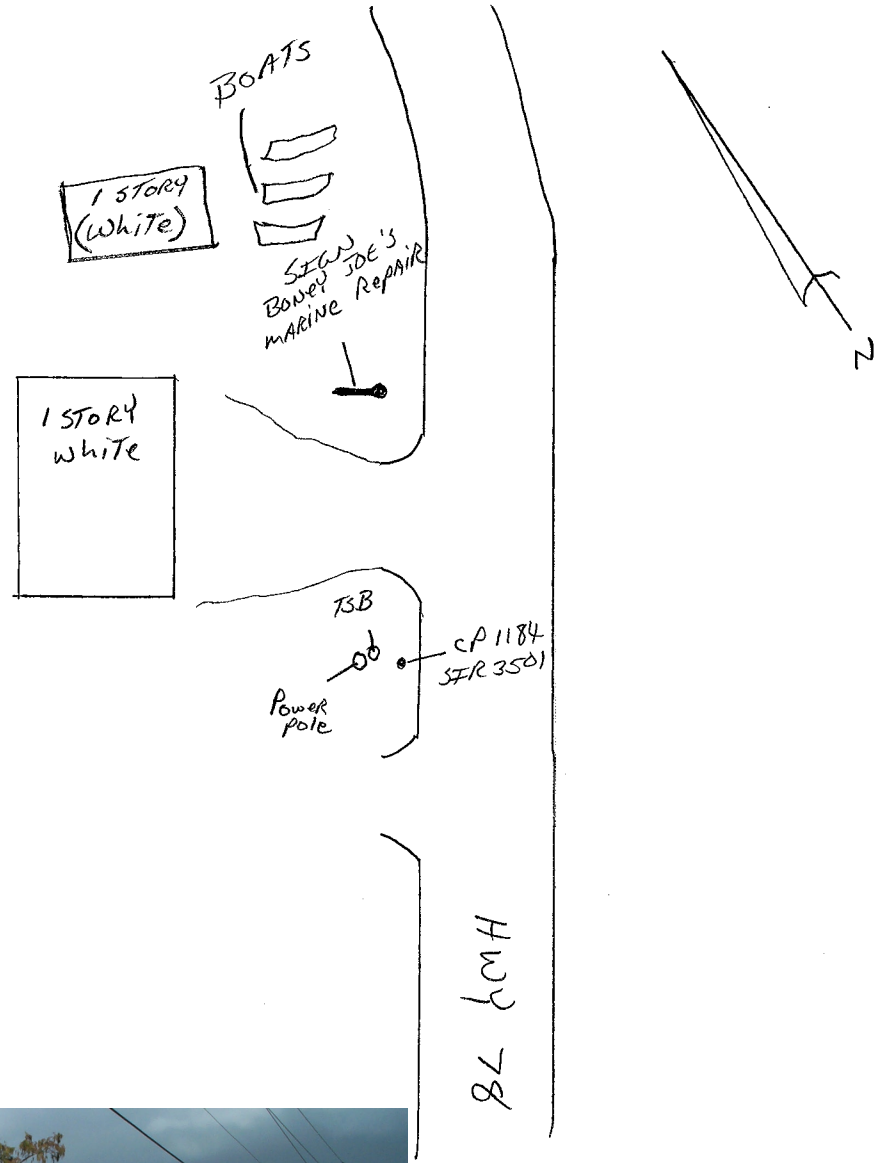
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1184





GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1185



N

Grass Field

Vegetation

CP1185

Parking for OASIS lounge

1 Story Tin BLDG

Parish septic Tank service

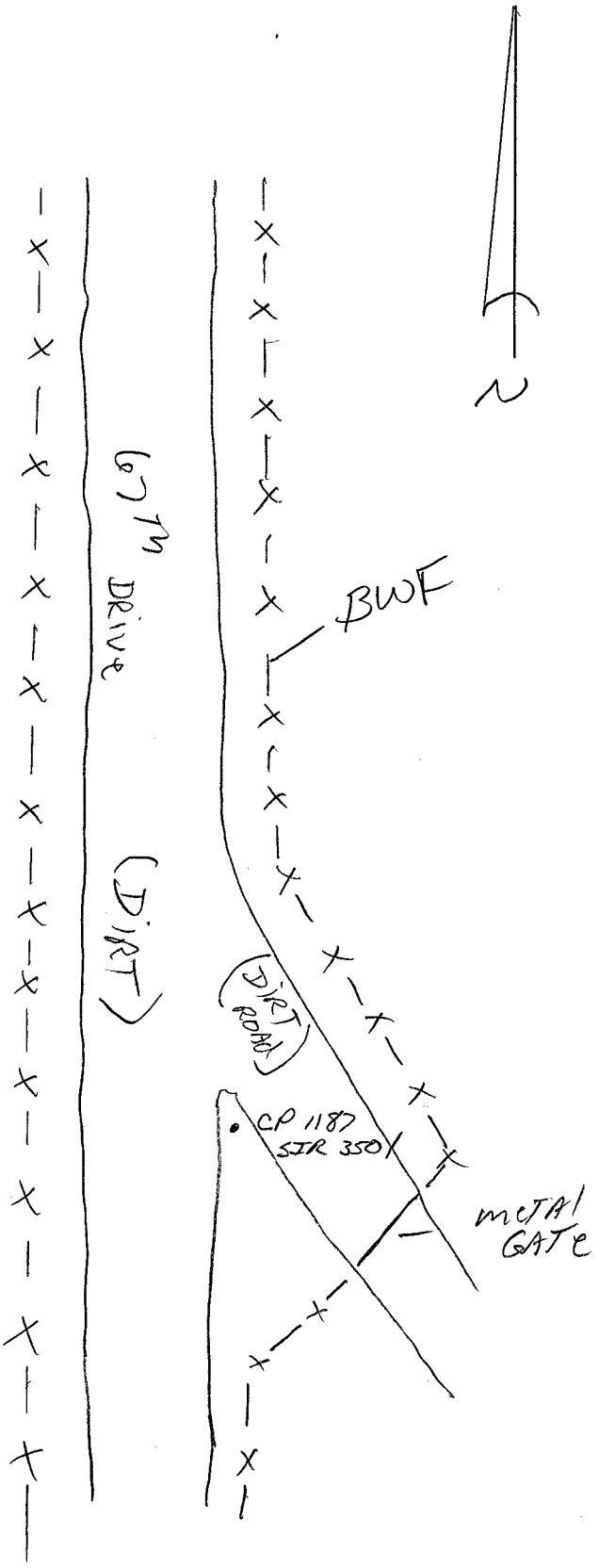
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1187

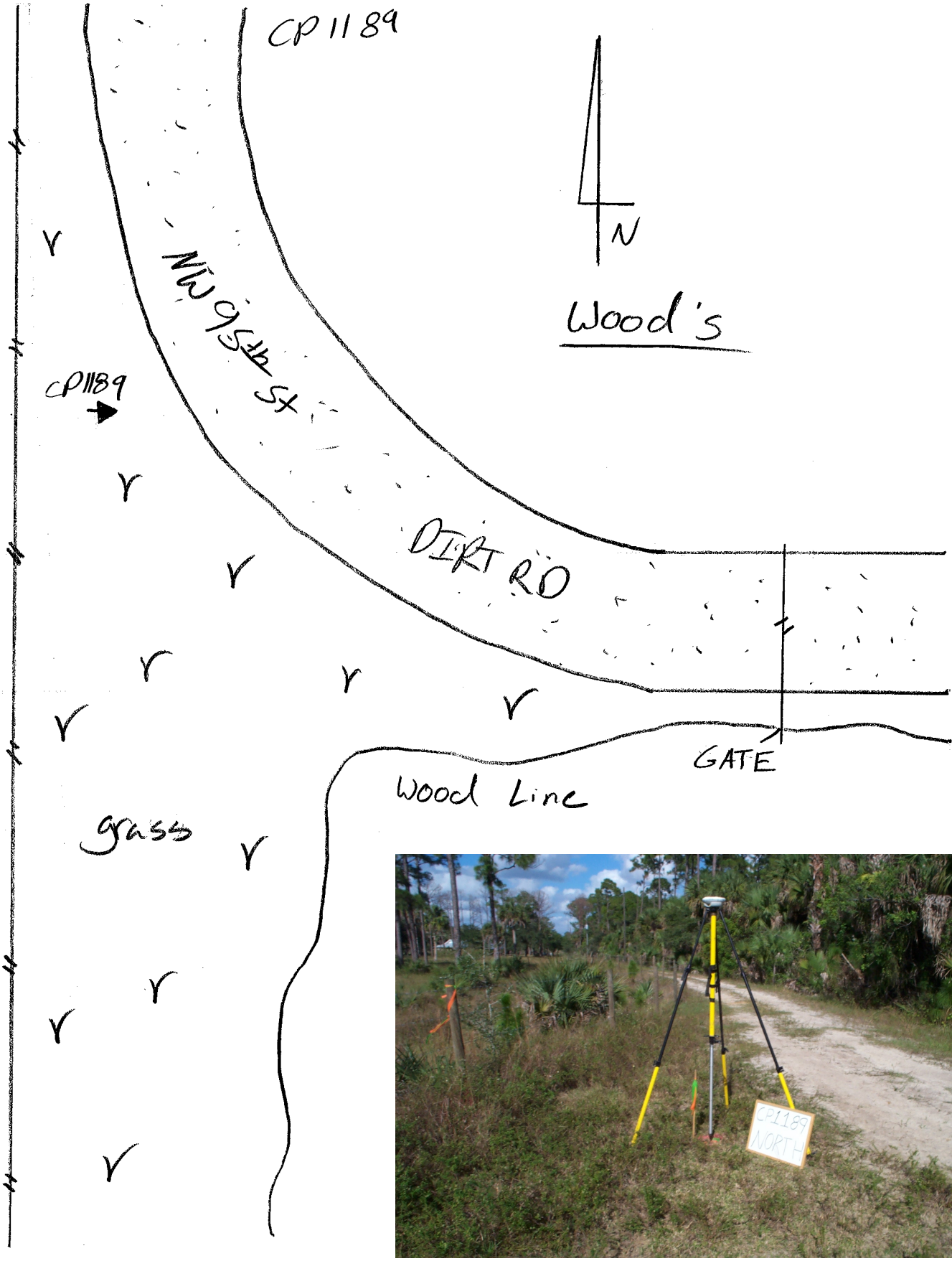


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT 27.09070 -80.61035 DATE _____

BY _____ JOB NO. _____

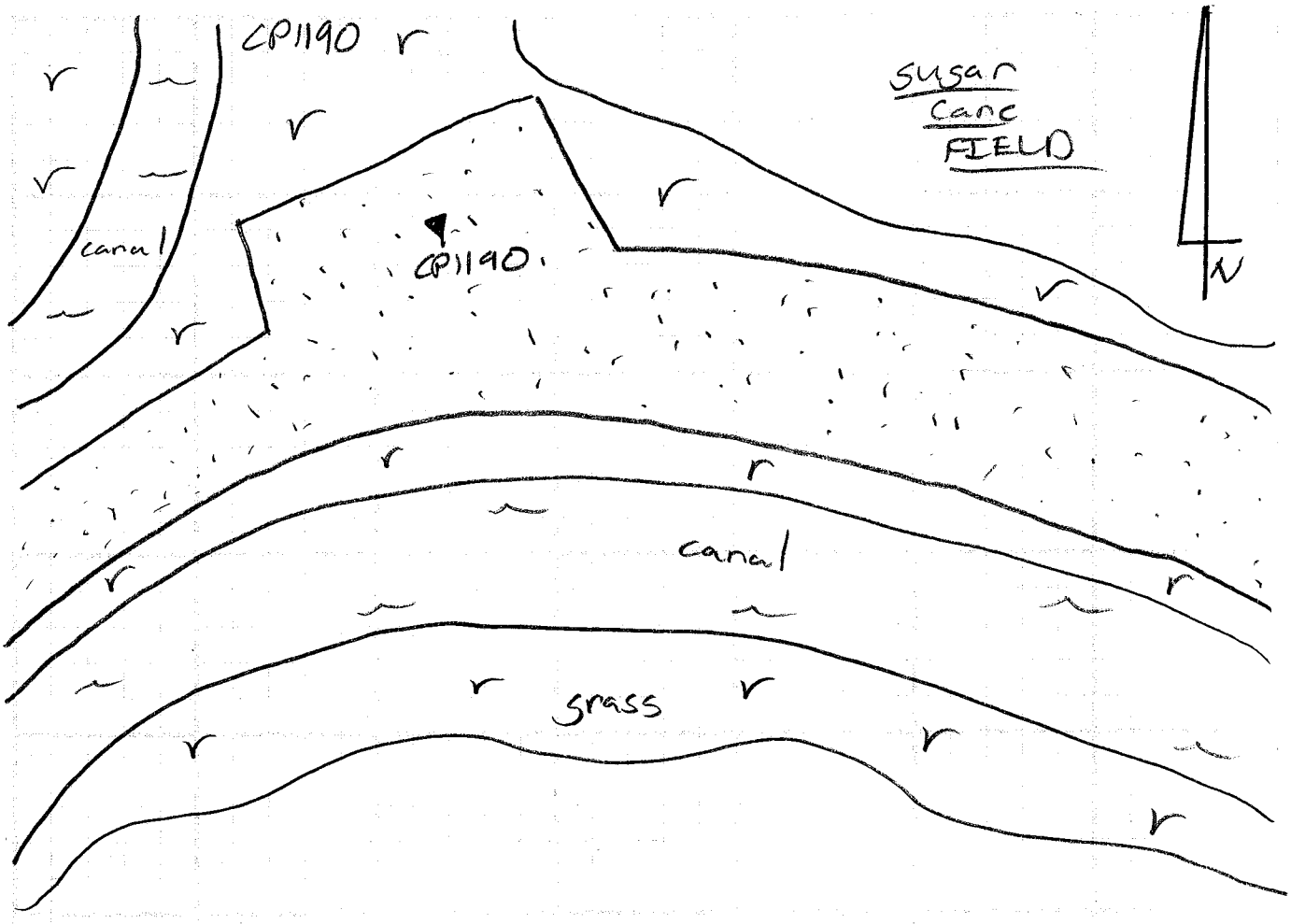


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



PALM TREE FARM

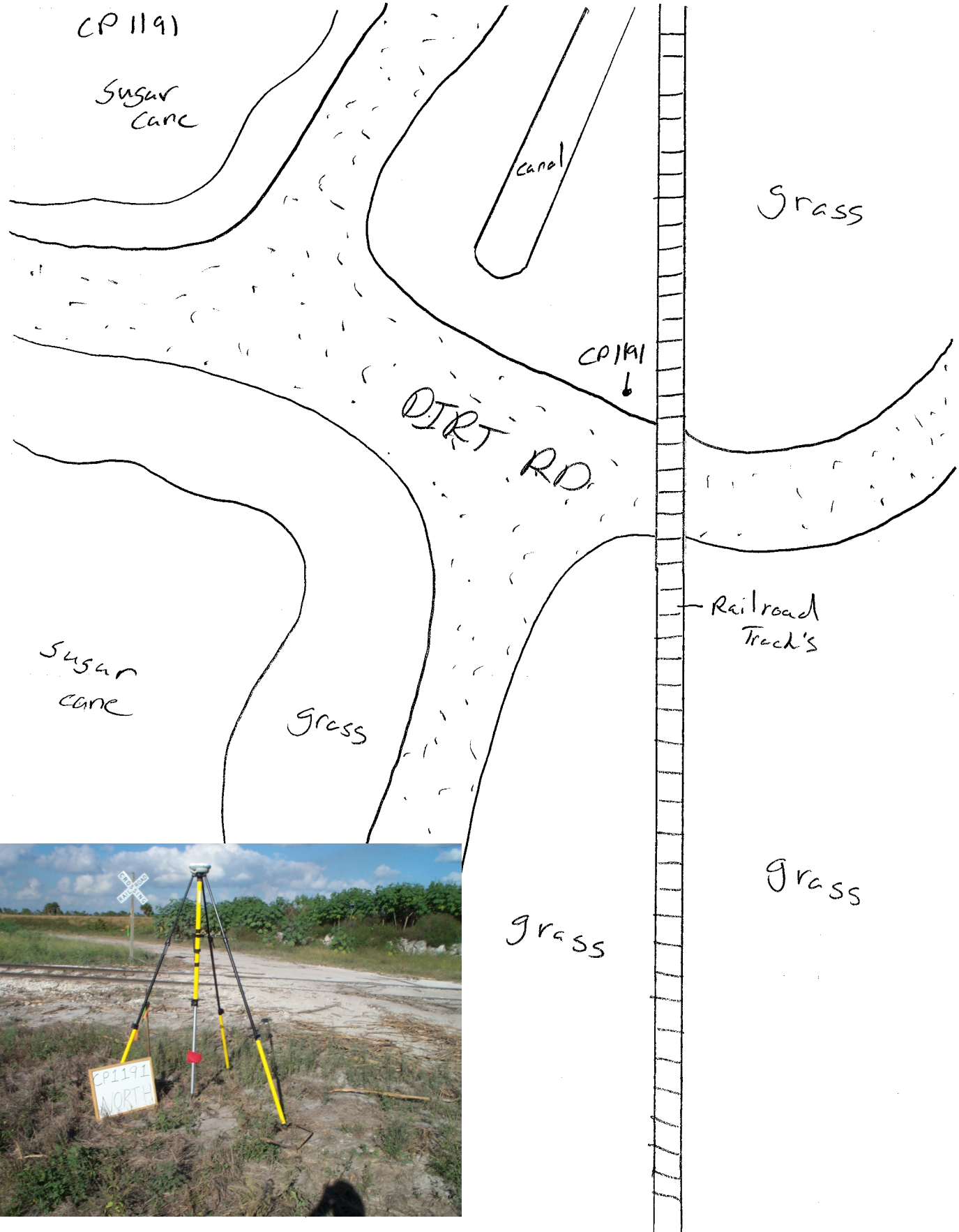


GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1193



GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT

SUBJECT

BY _____



CP 1194

N

canal

canal

Sugar Cane

canal

CP1194

canal

canal

Sugar Cane

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

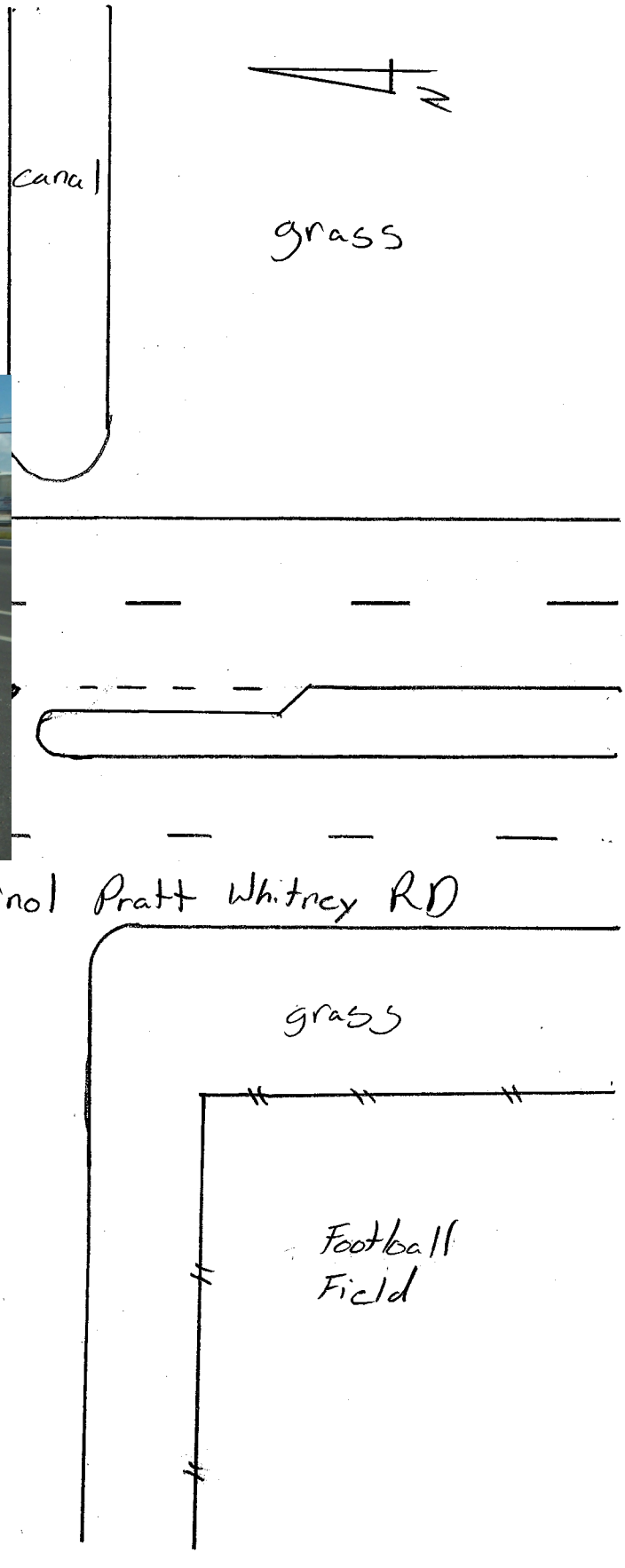
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1195

Citrus canker Decontamination Area





Parking for Siminole Ridge Community High school

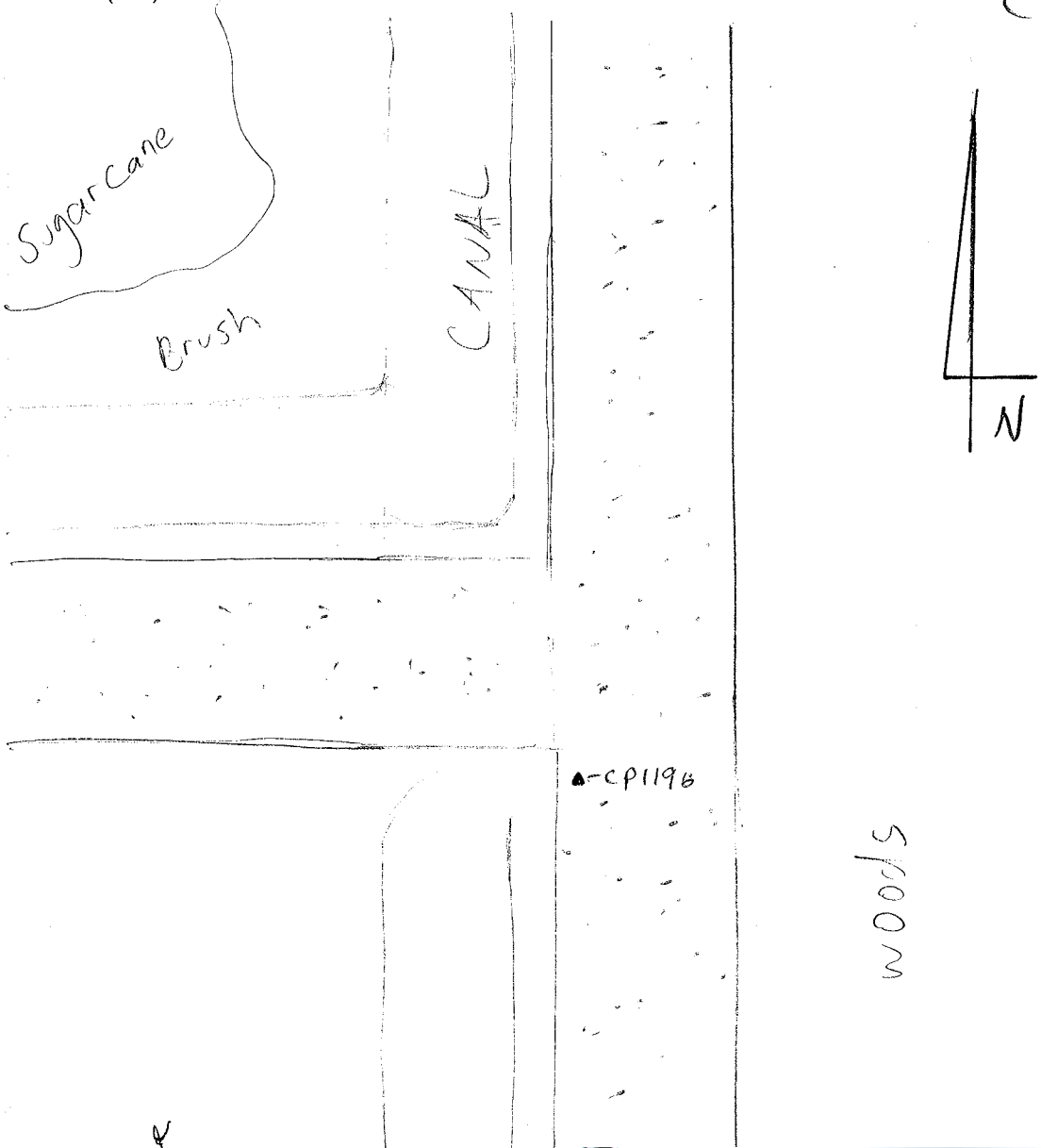
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP1196





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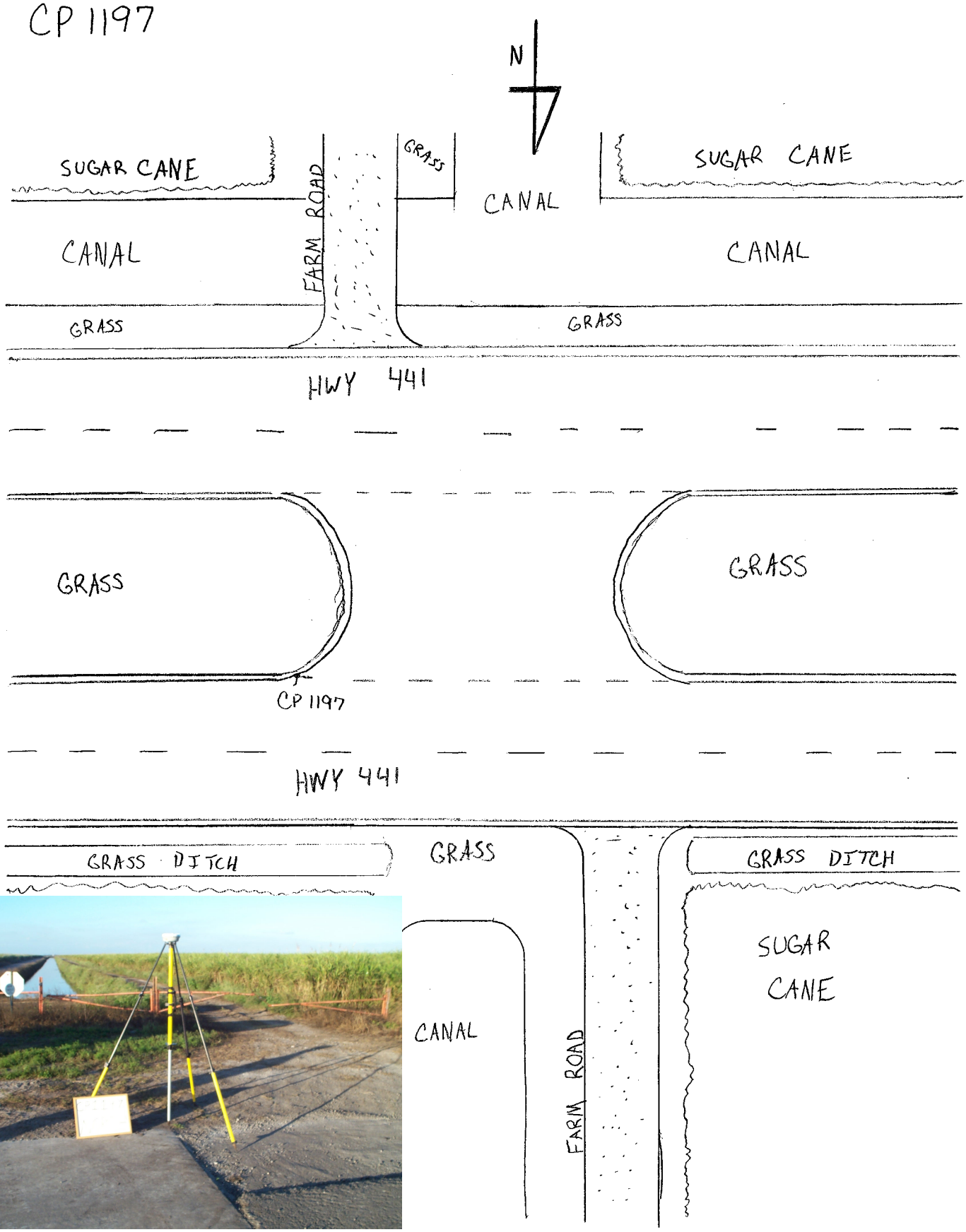
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1197



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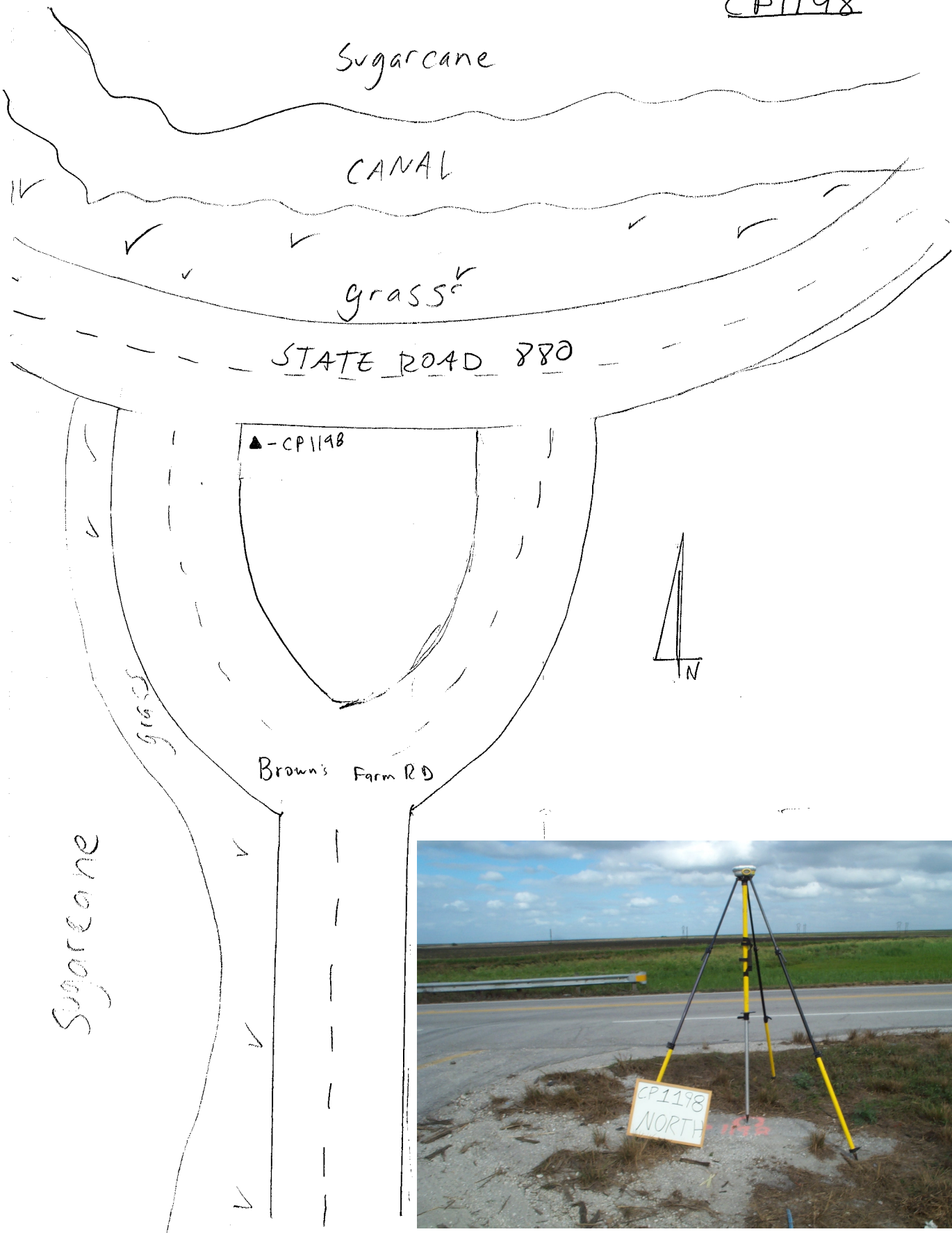
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP1198



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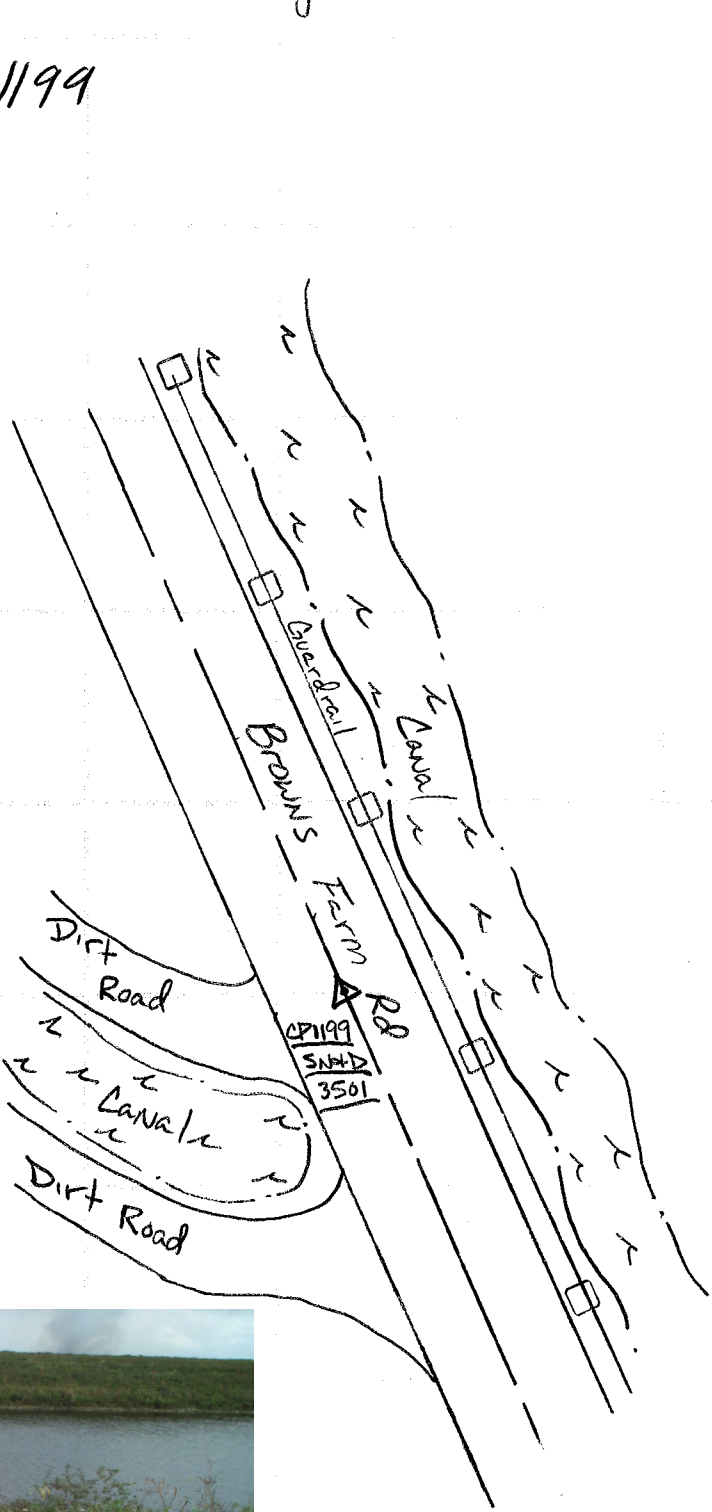
SUBJECT _____ DATE 10-16-07

BY Yamil Jimenez JOB NO. _____

CP 1199





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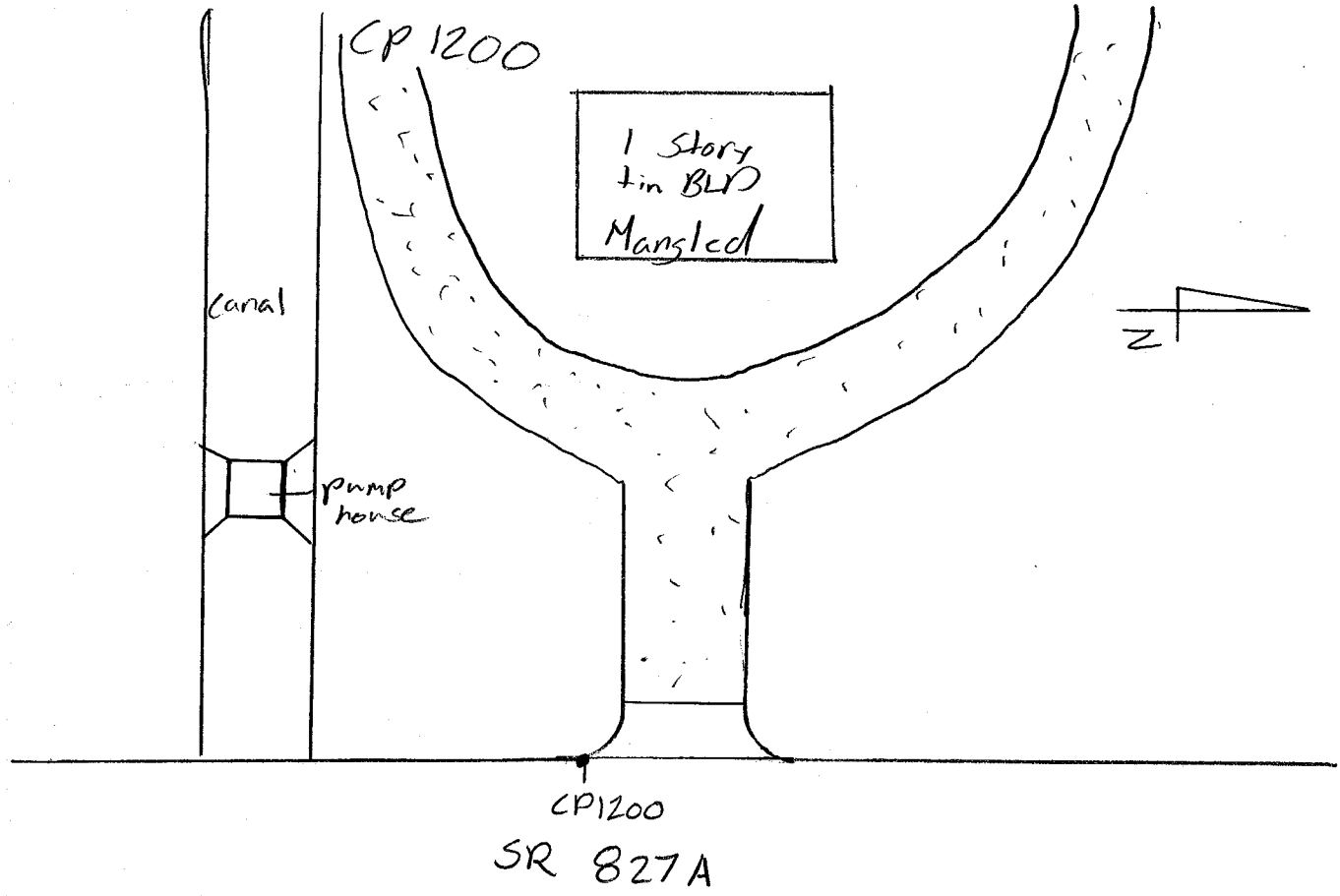

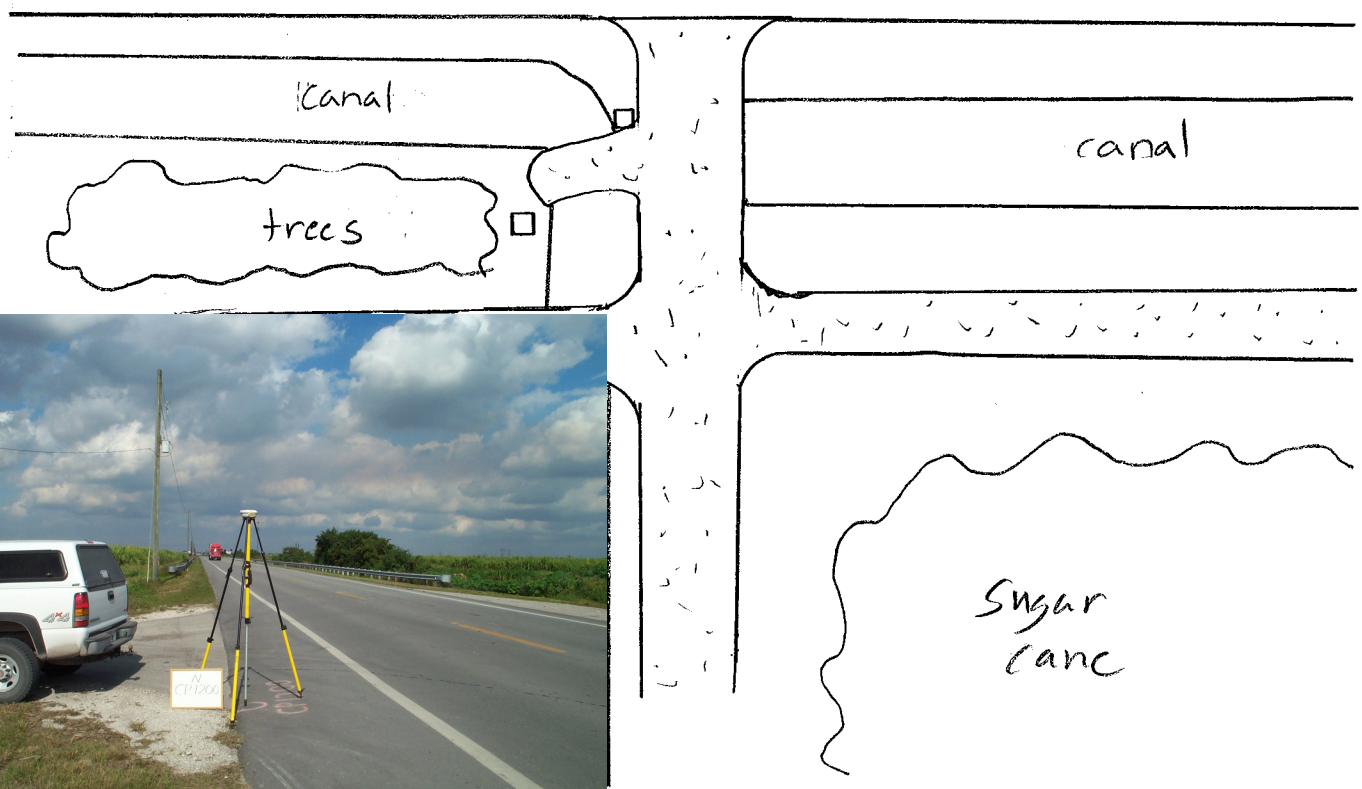

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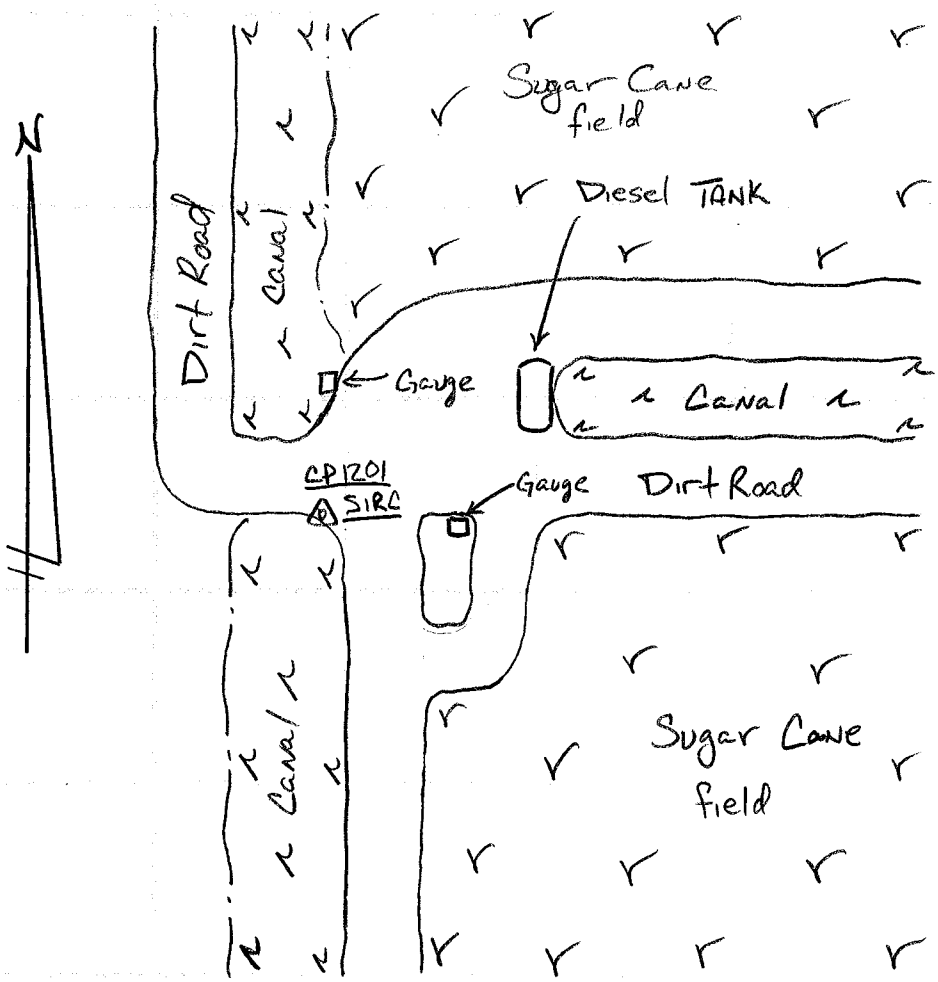
PROJ

SUBJ

BY

CP 1201





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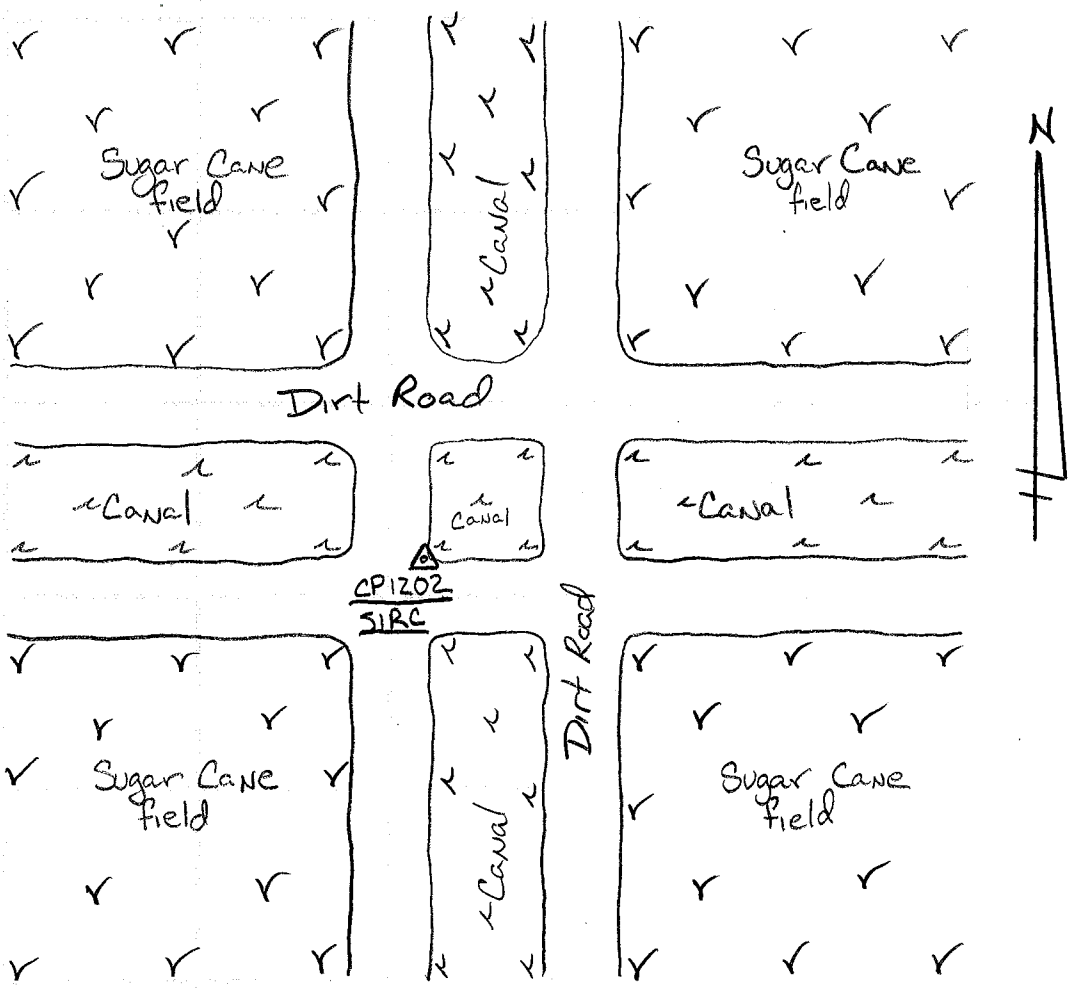
PR

SU

BY

CP 1202





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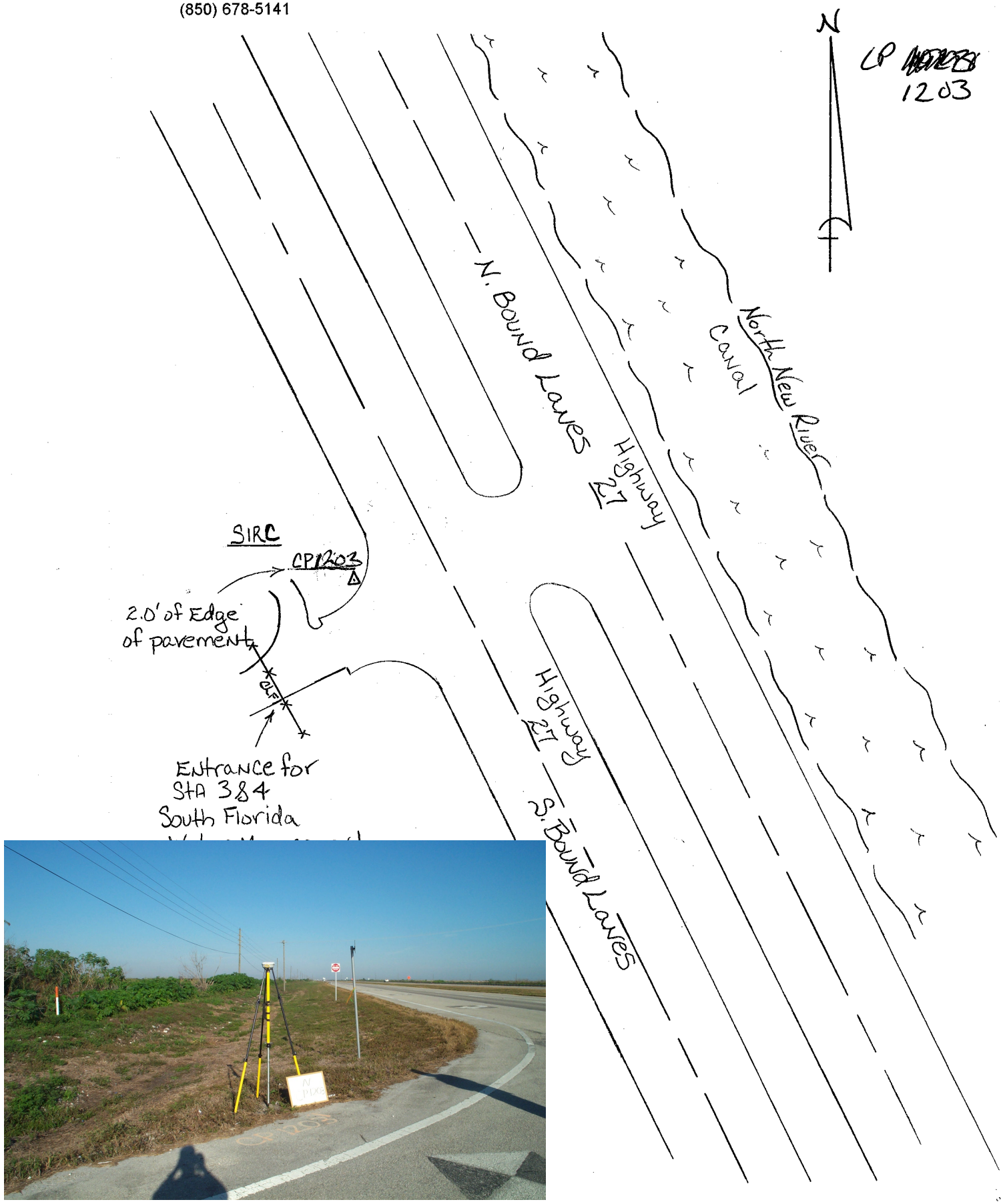
SUBJECT _____ DATE 10/13/07

BY _____ JOB NO. _____



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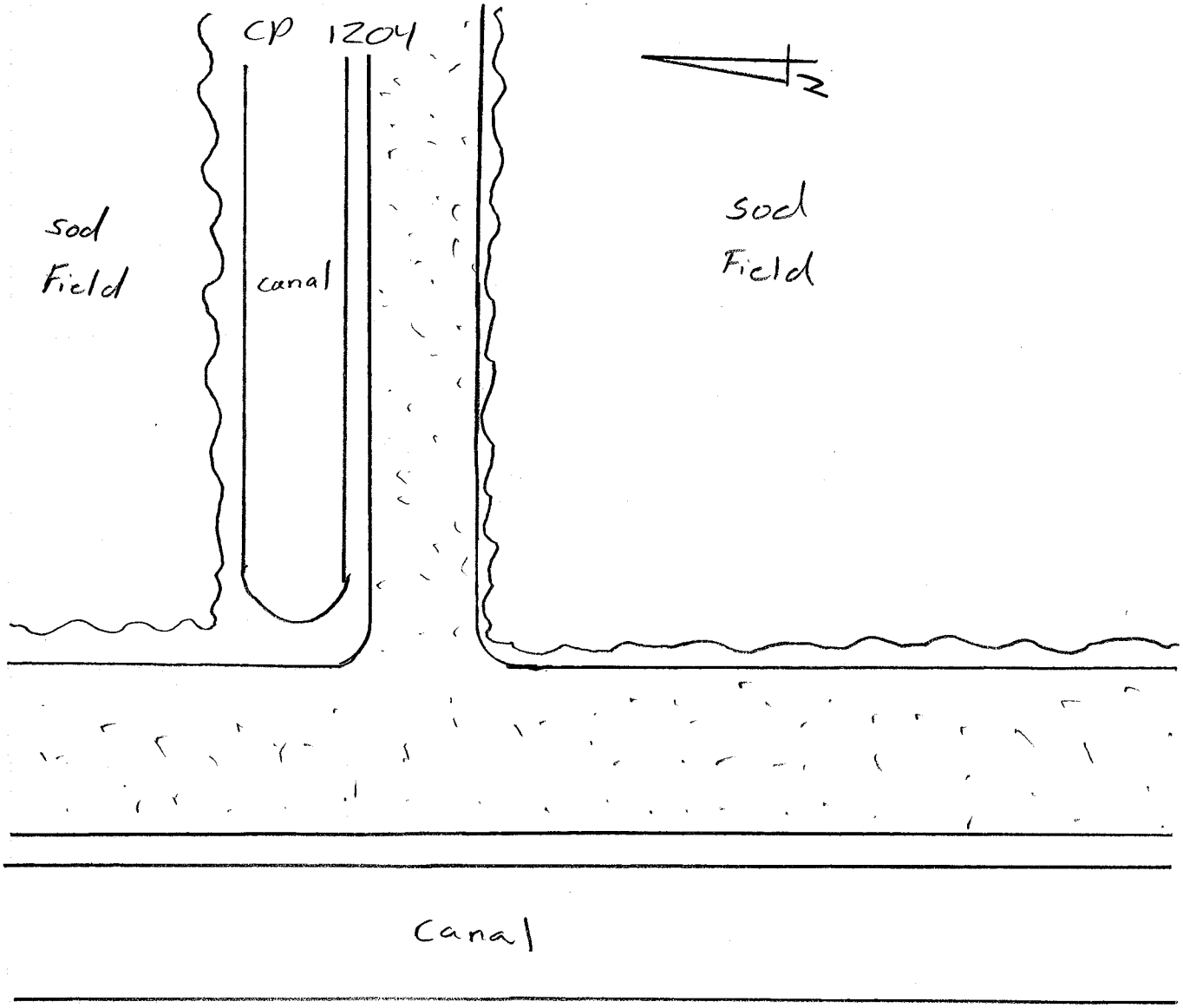



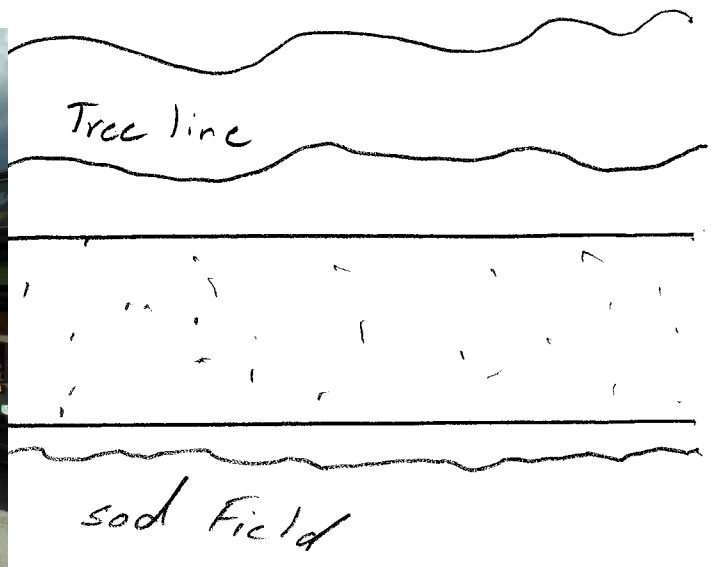

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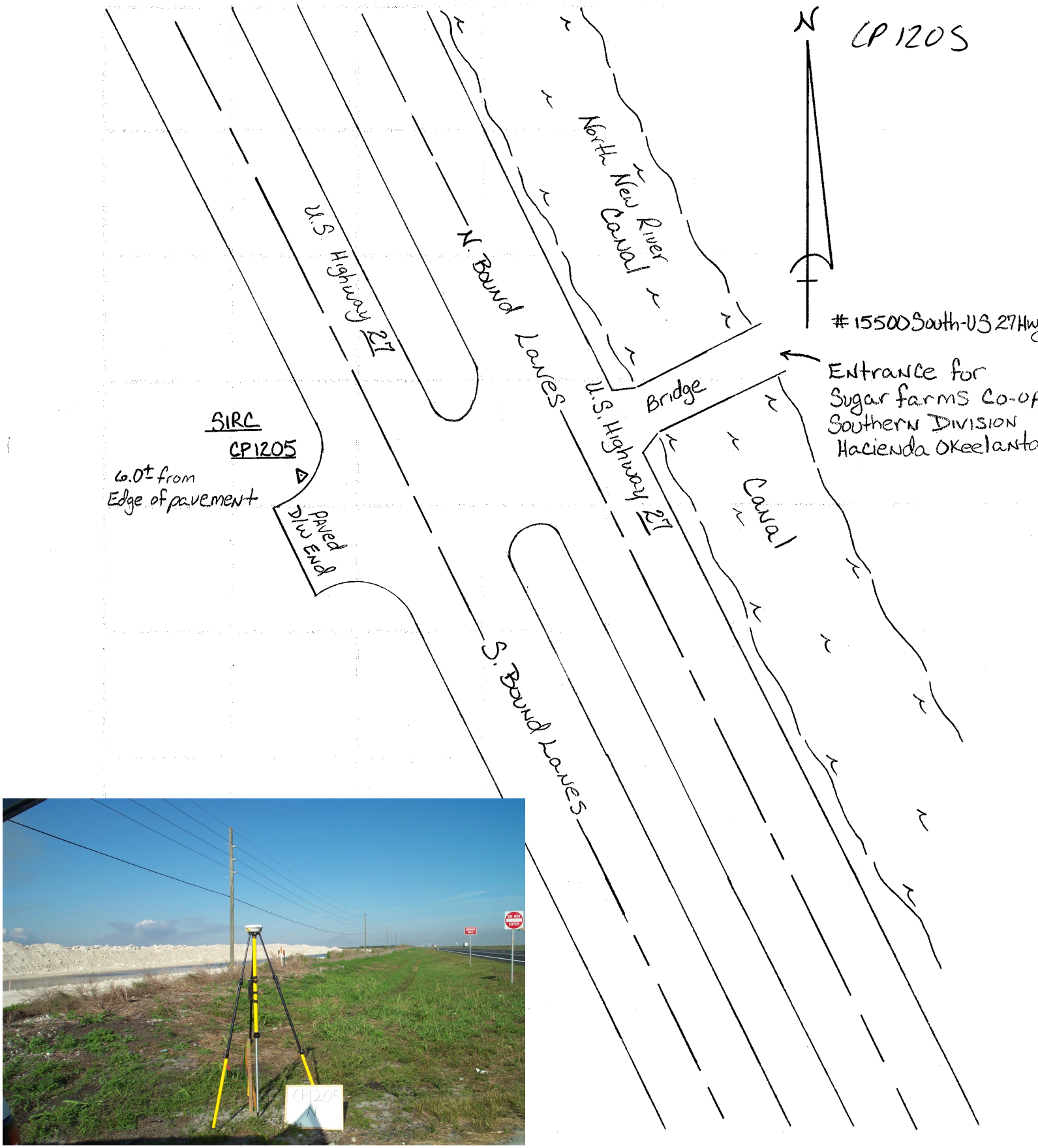

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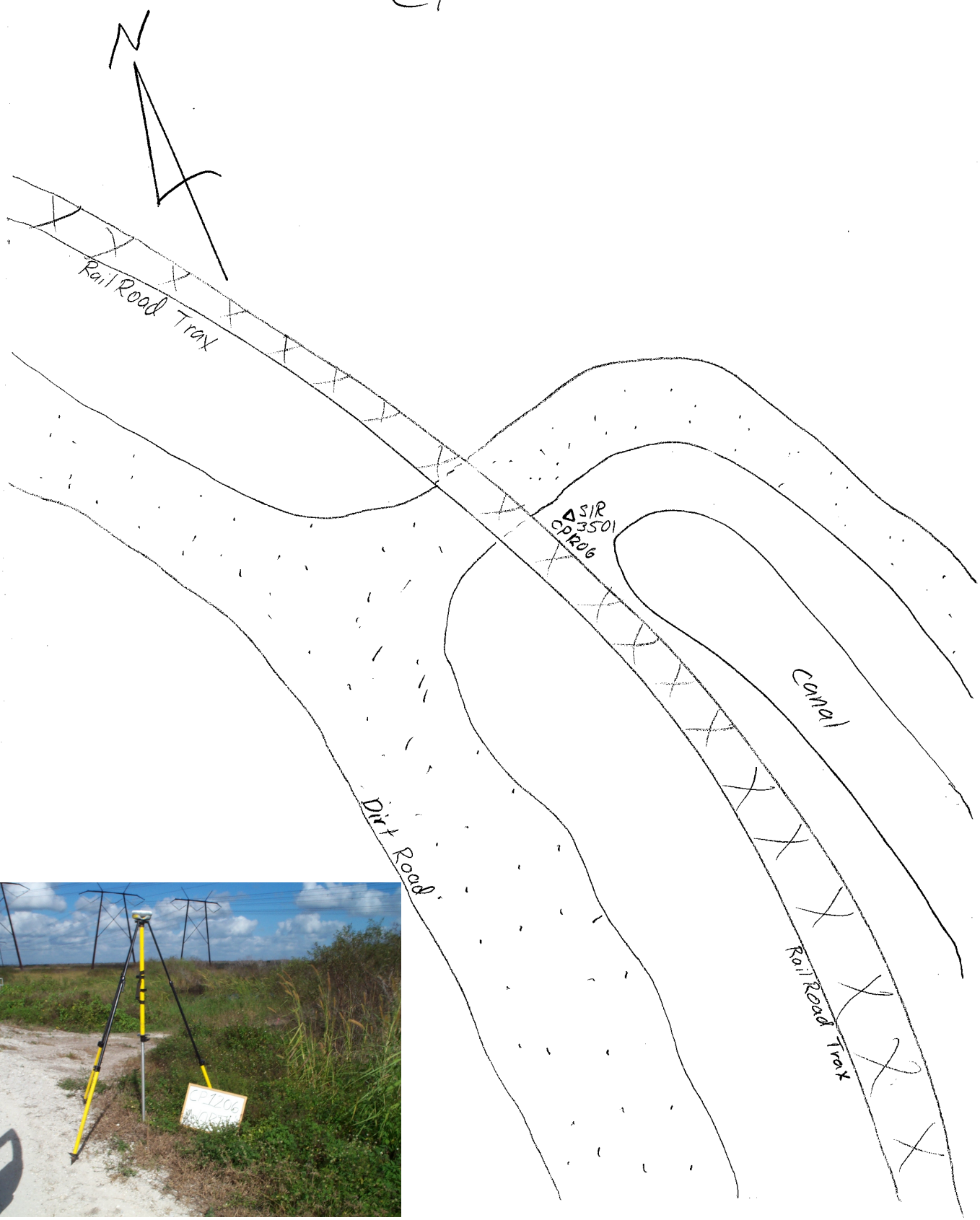
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1206



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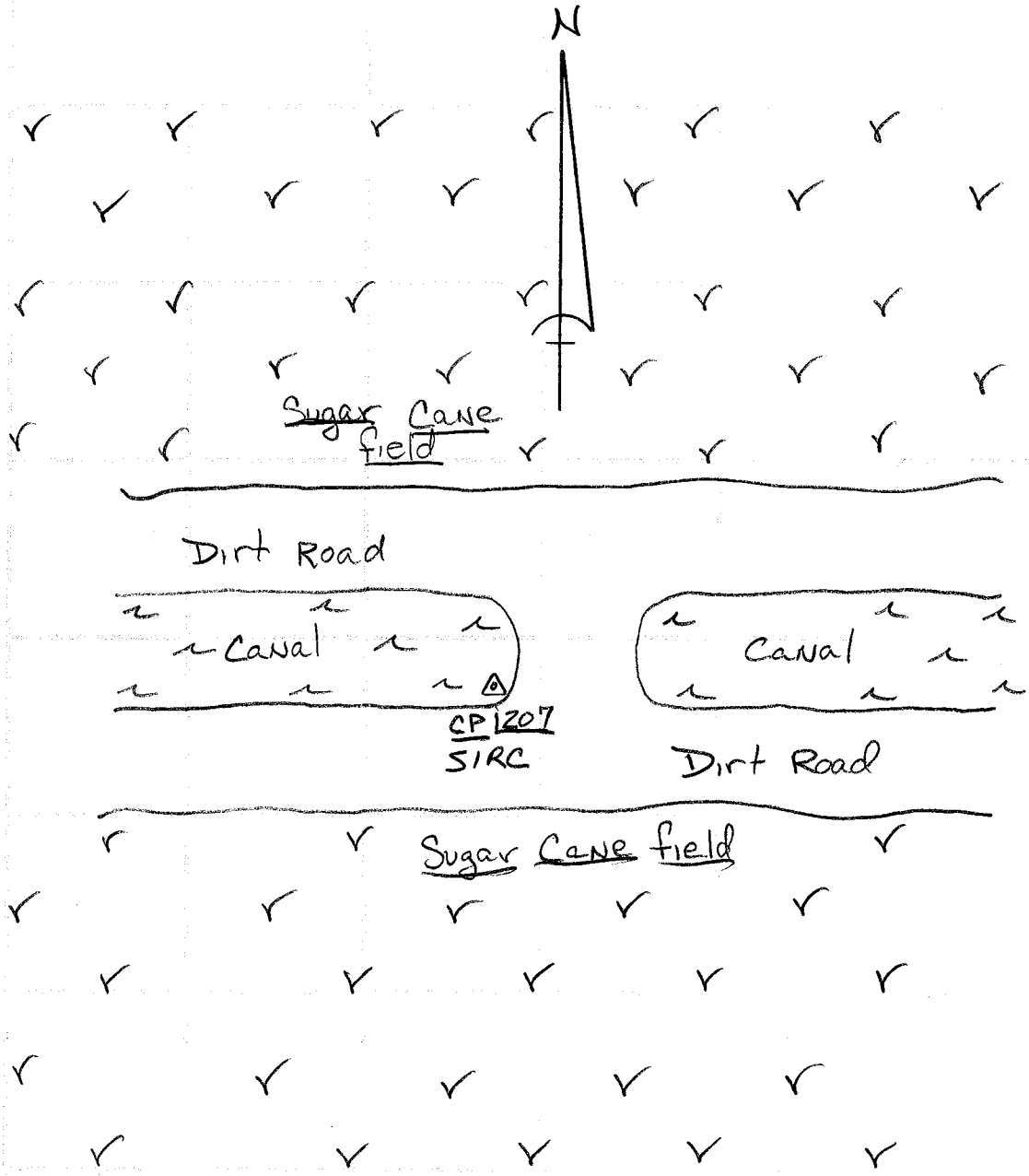
PROJE

SUBJE

BY



CP1207



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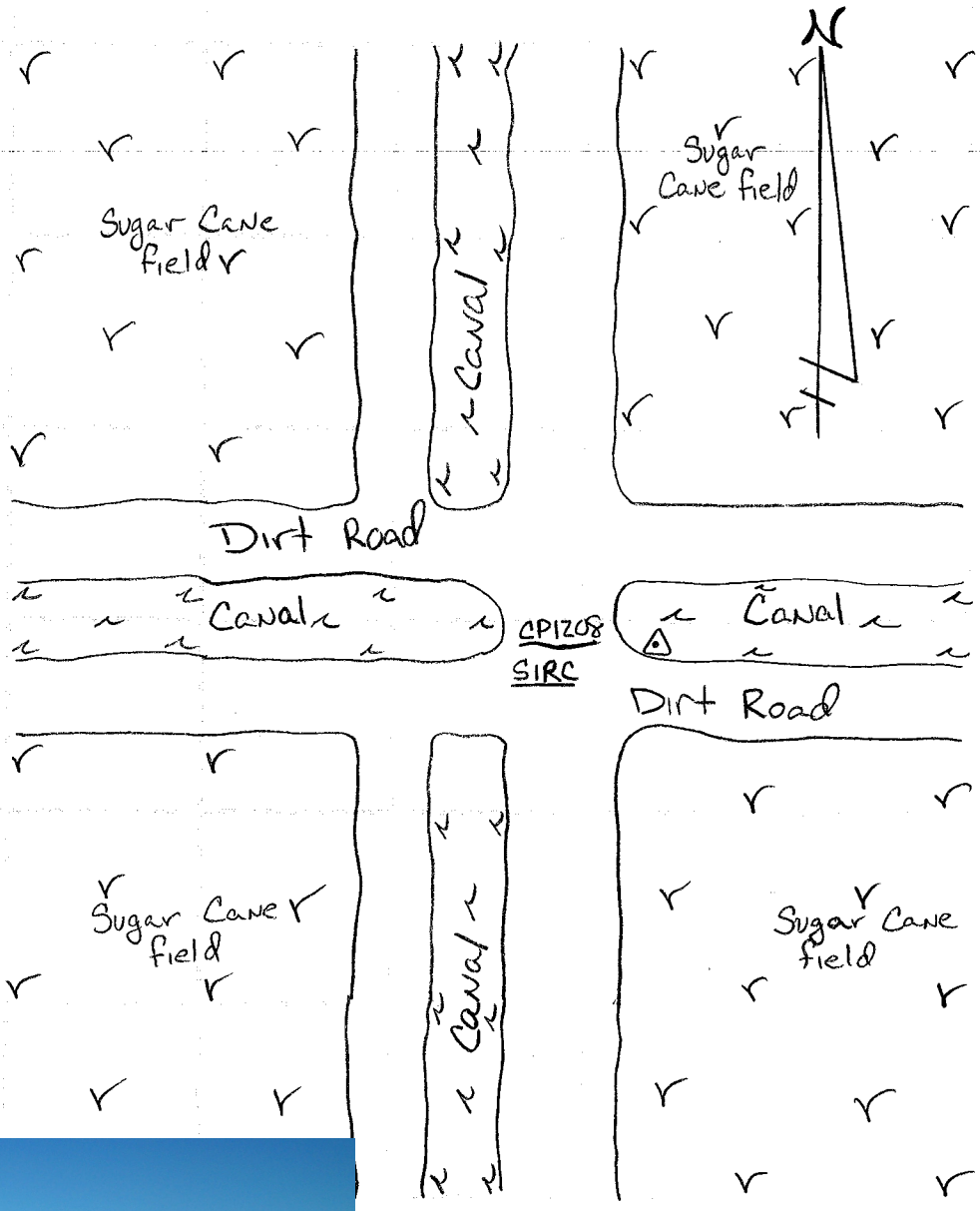
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE 10-16-07

BY Yamil Jimenez JOB NO. _____

CP 1208





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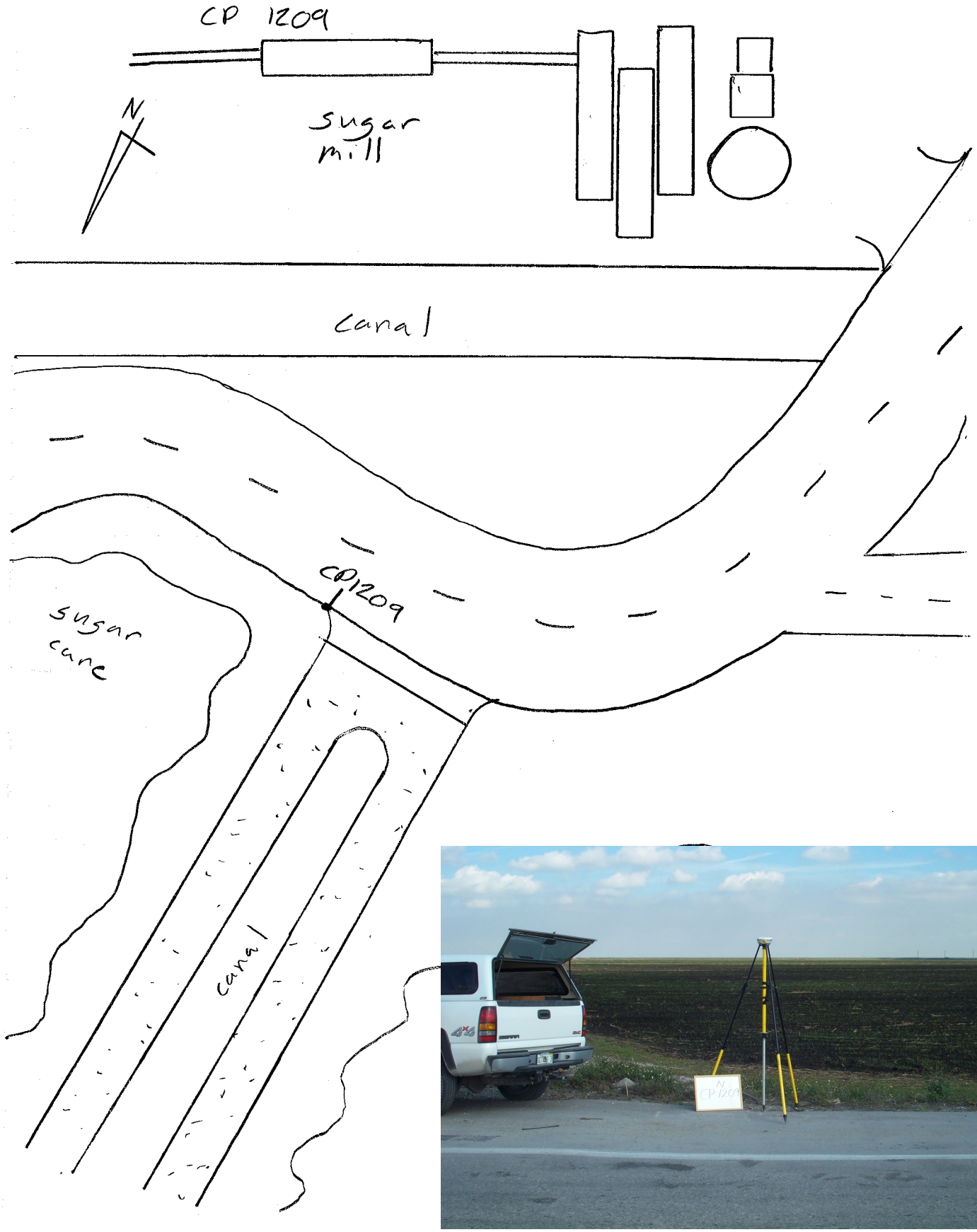

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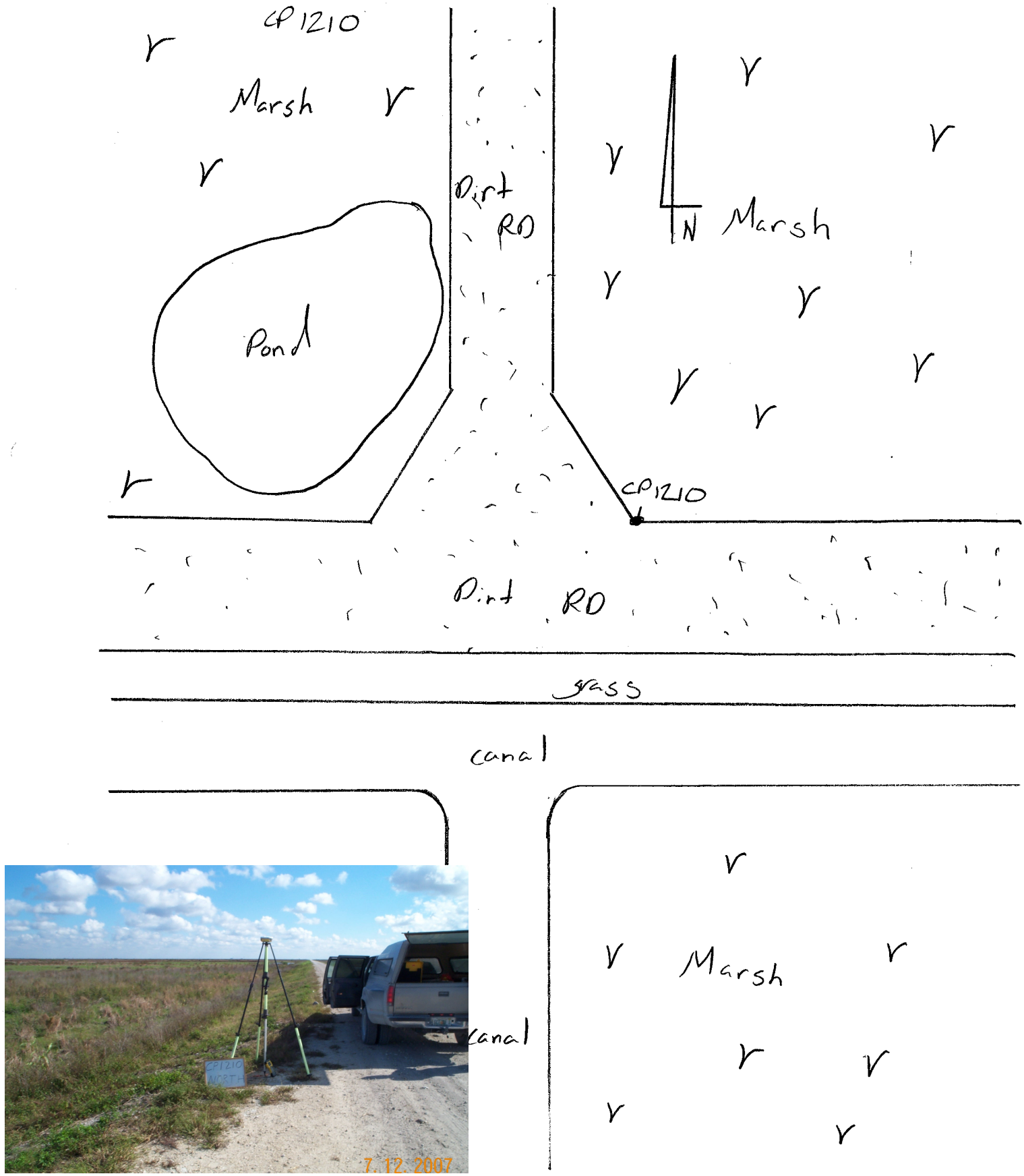

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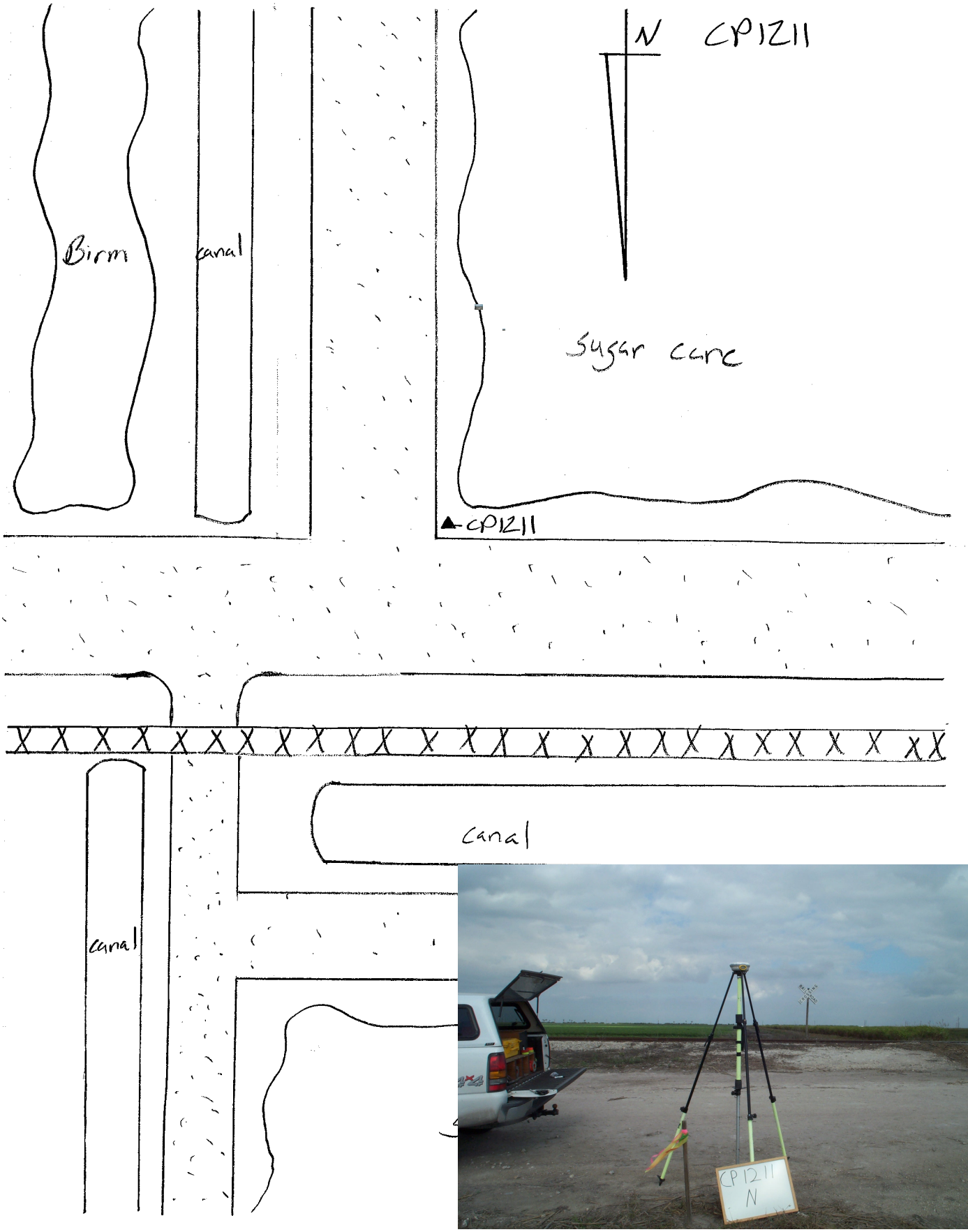

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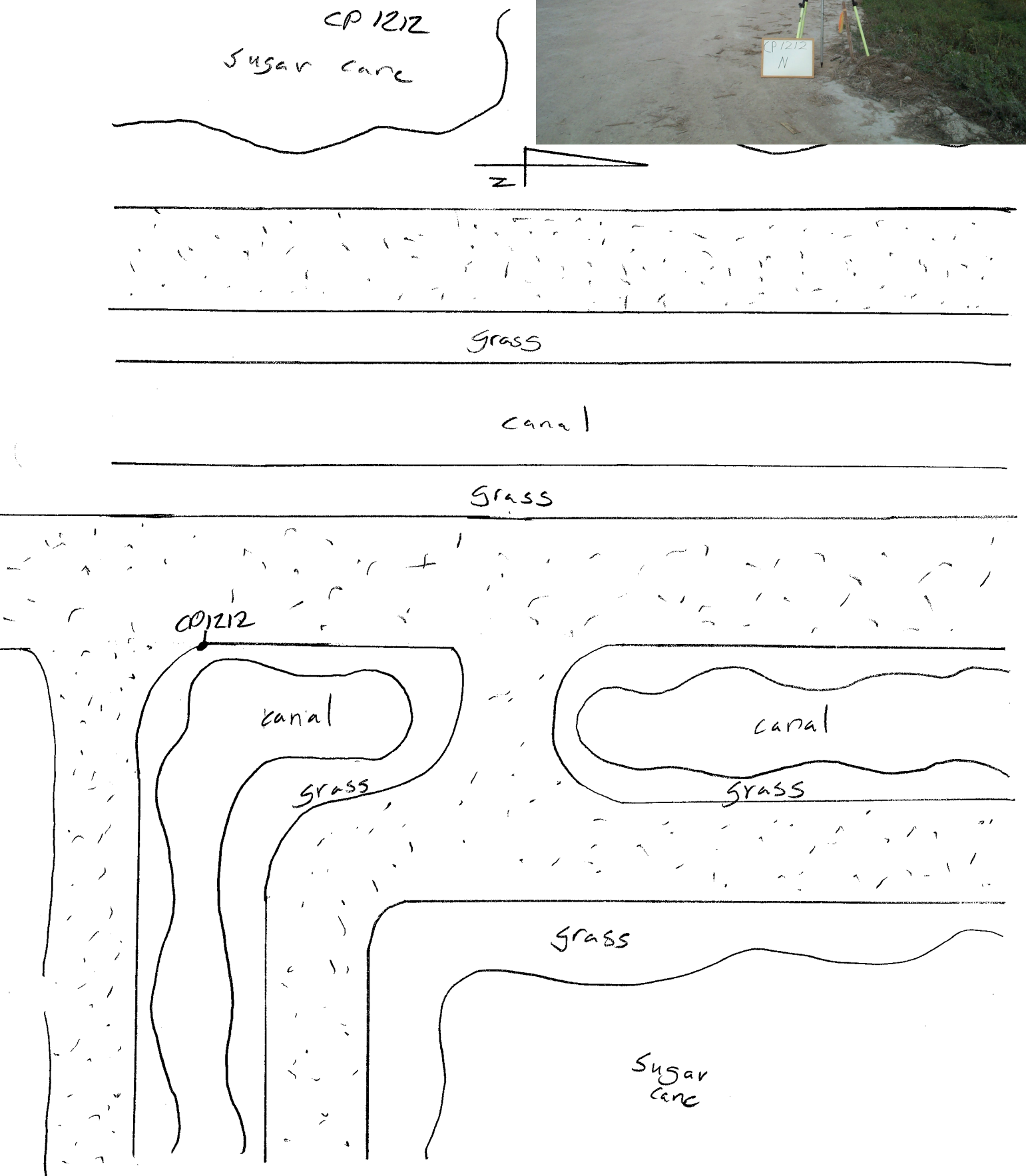
SUBJECT _____

BY _____





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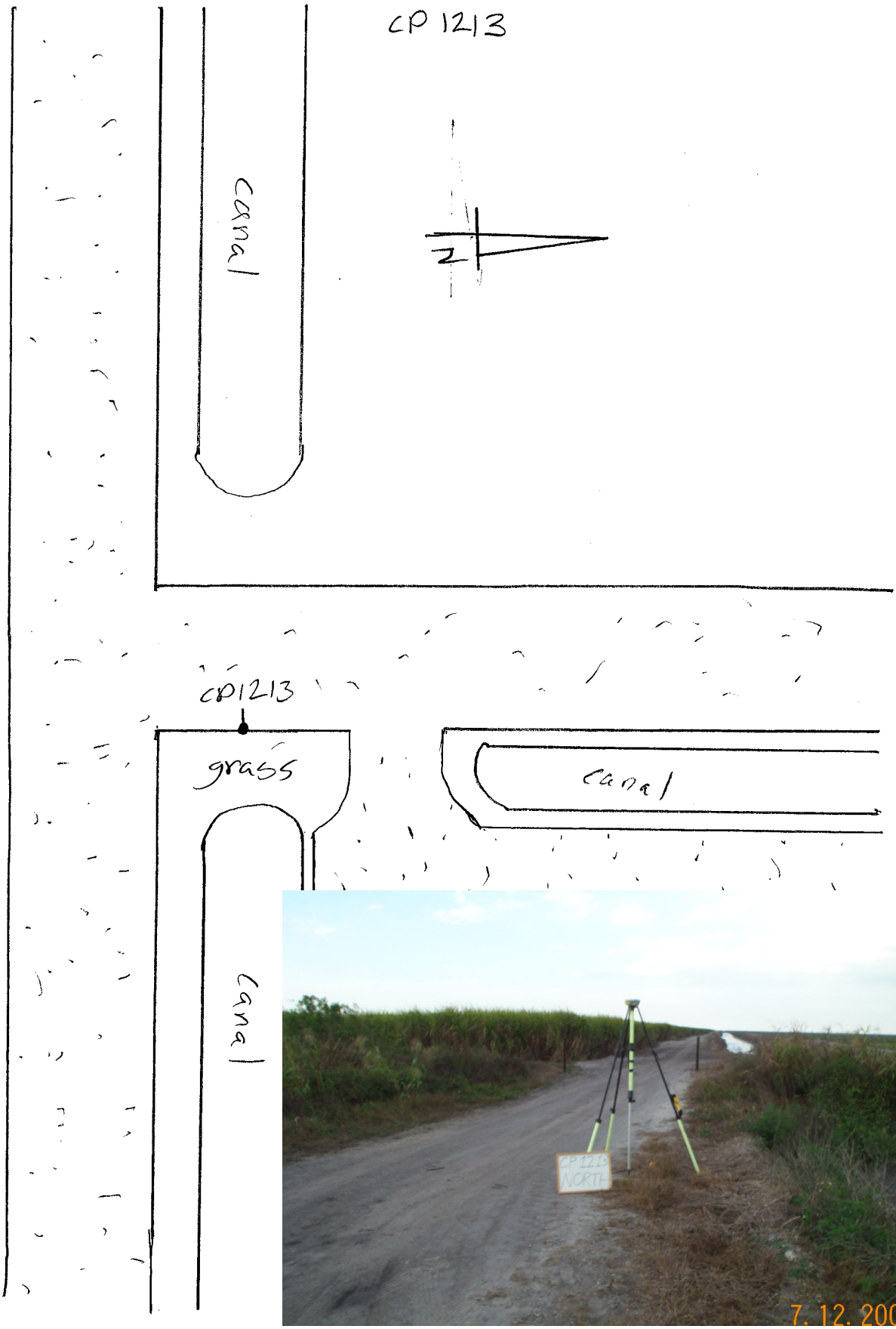

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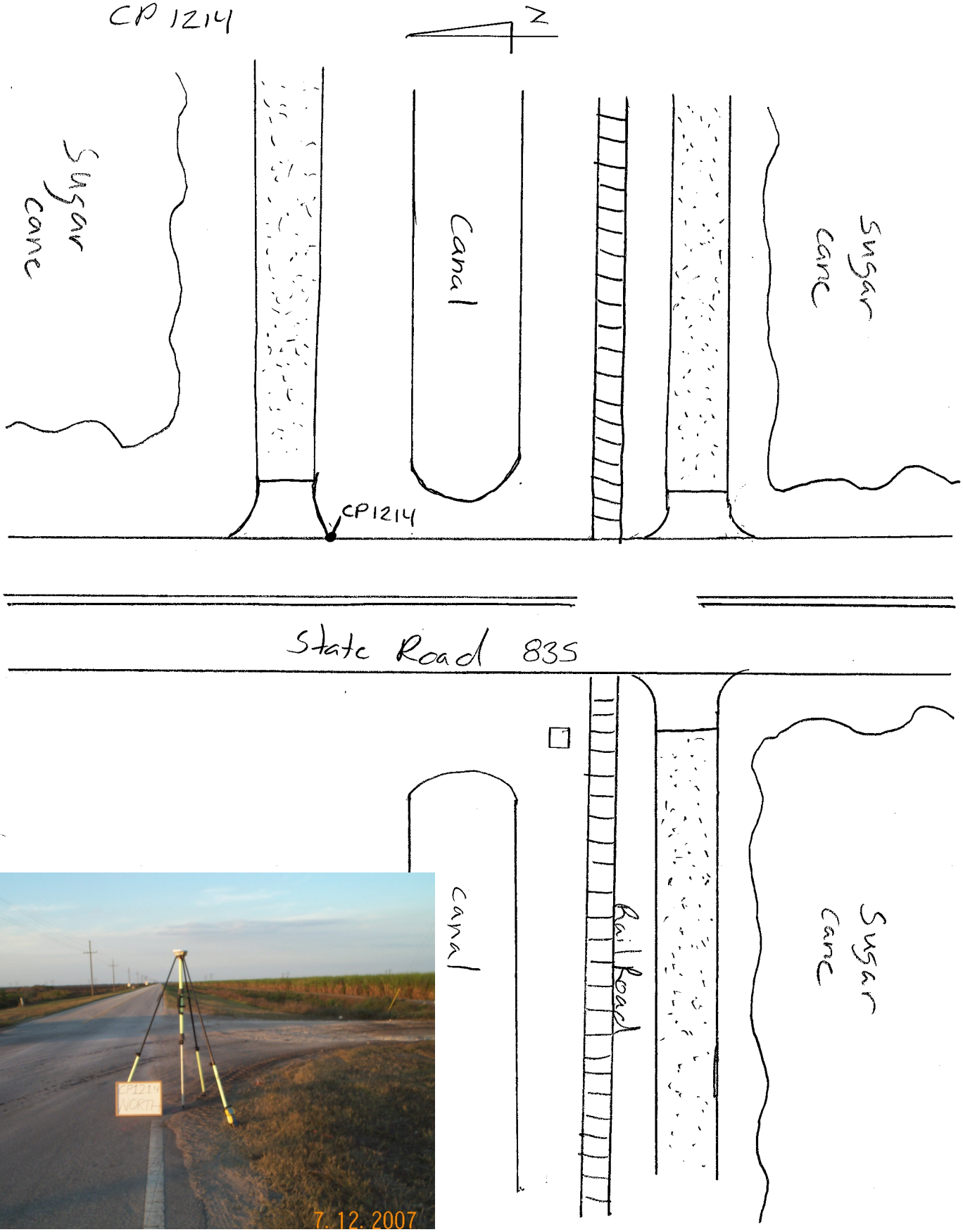
BY _____ JOB NO. _____

CP 1214



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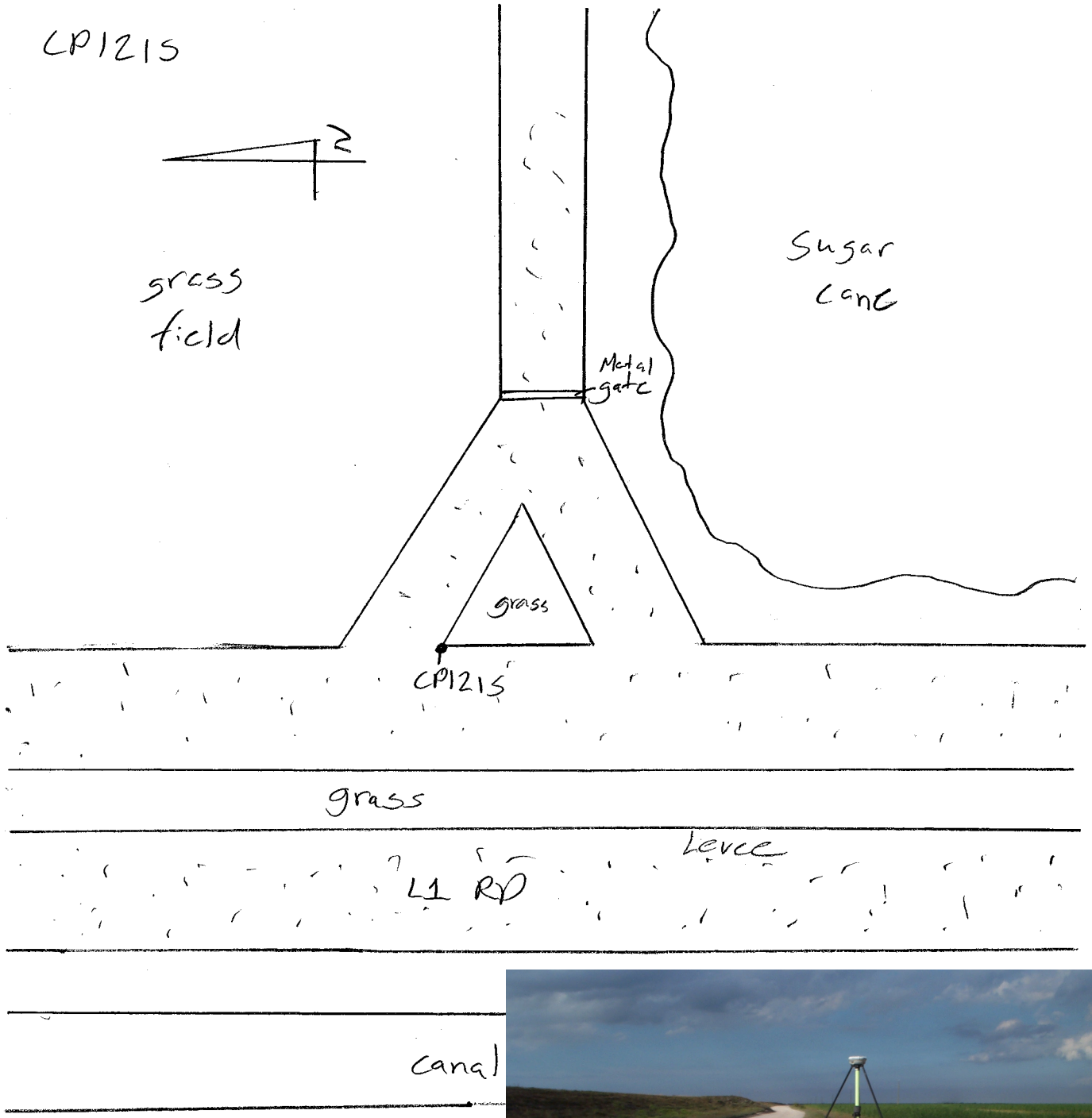



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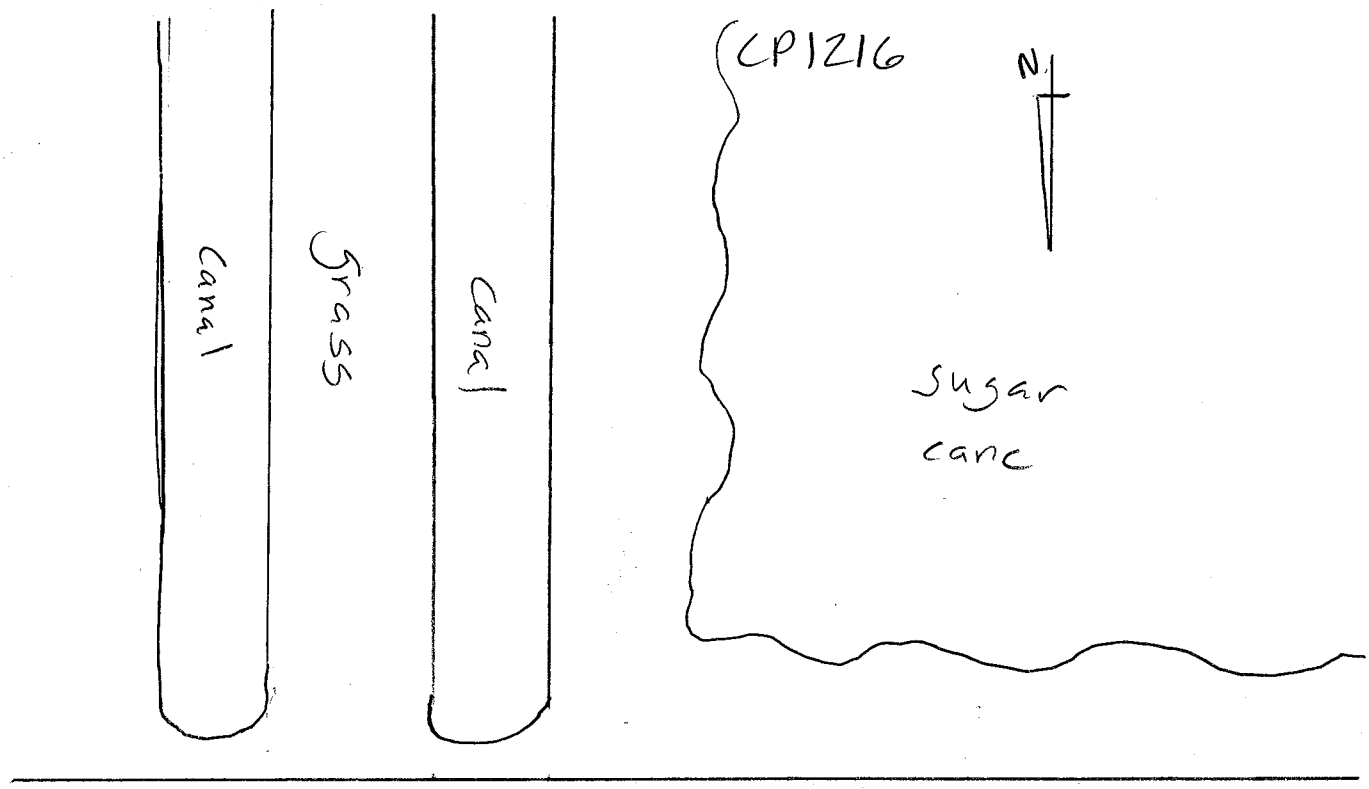

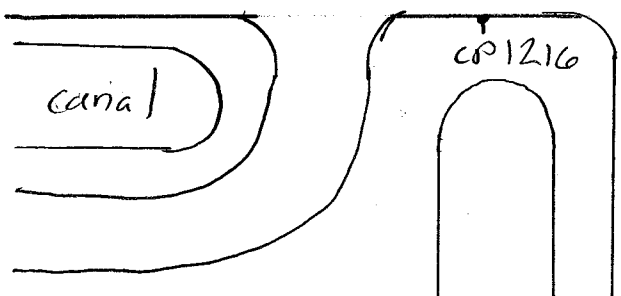

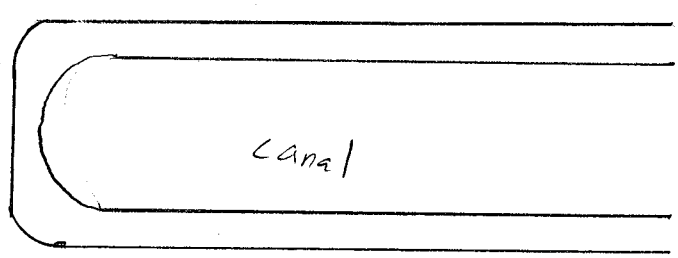

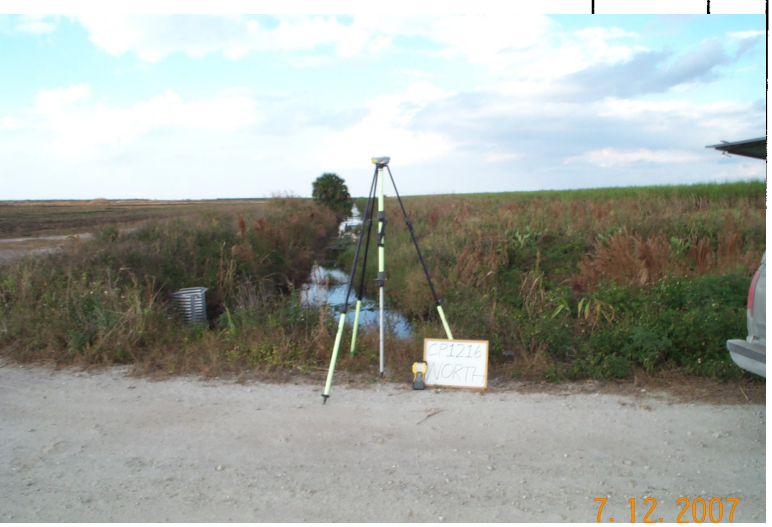

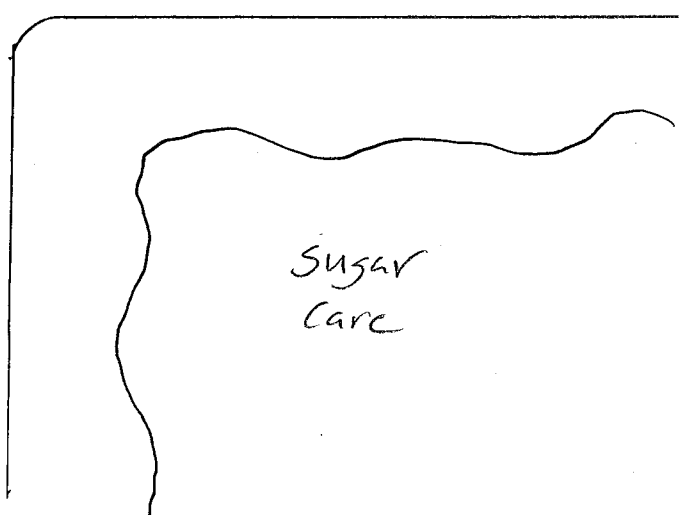

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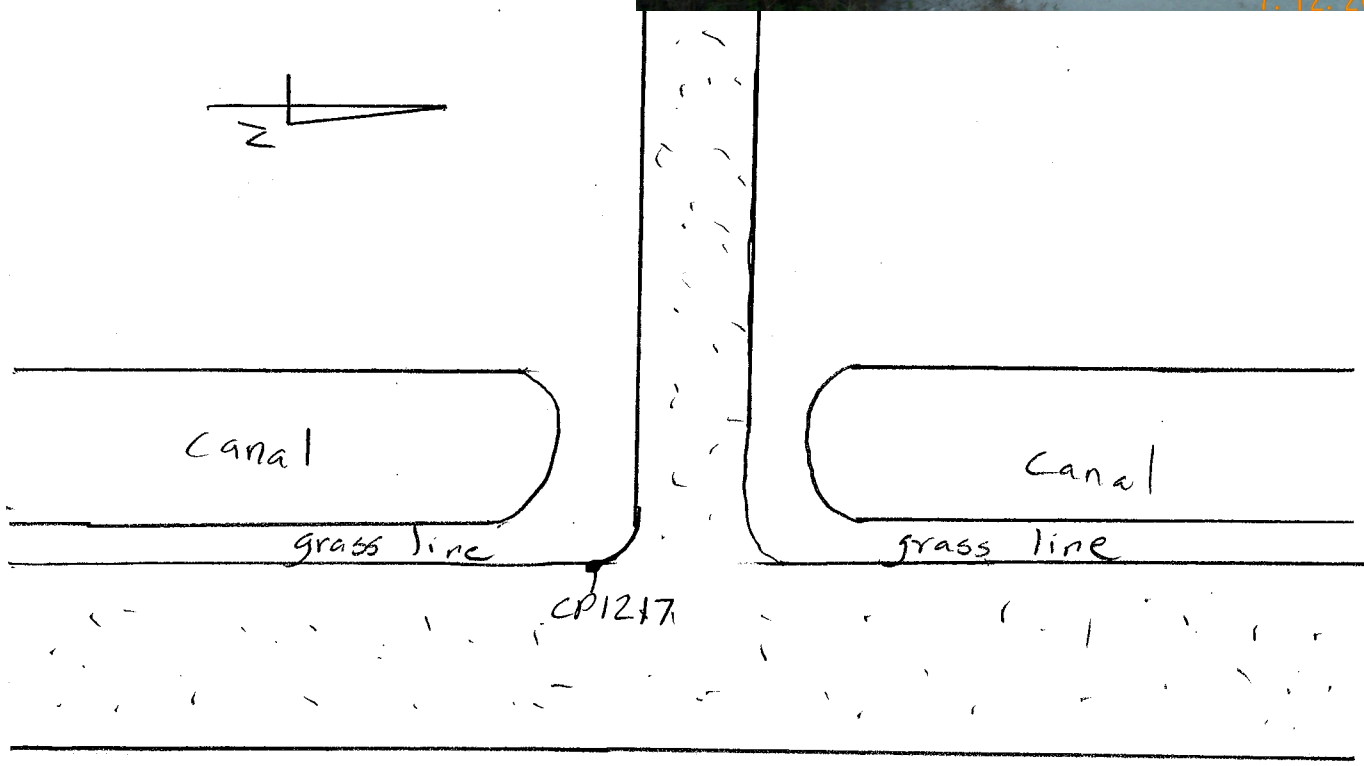
BY _____



CP 1217



Marsh
Field

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NICEVILLE, FLORIDA 32578
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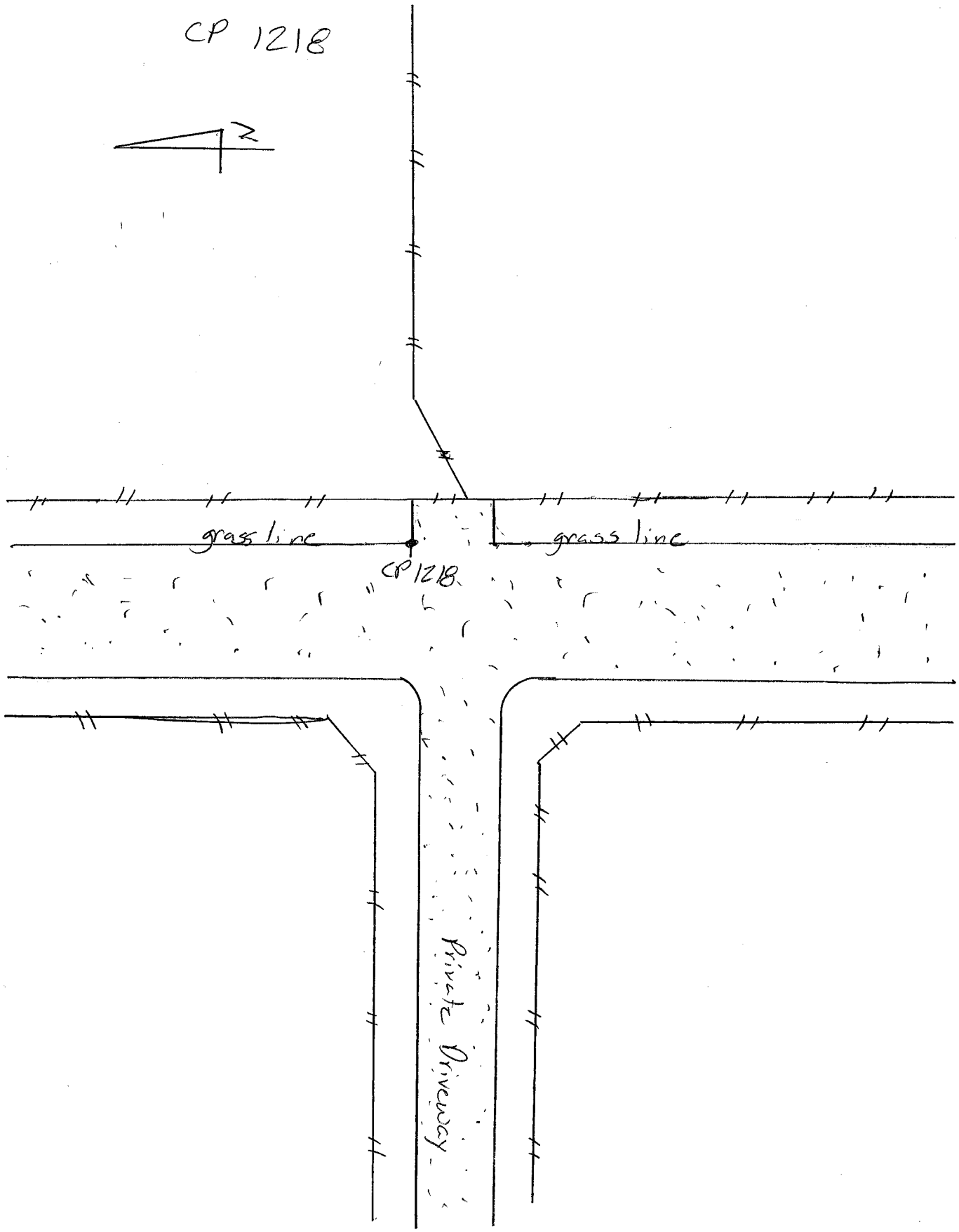
SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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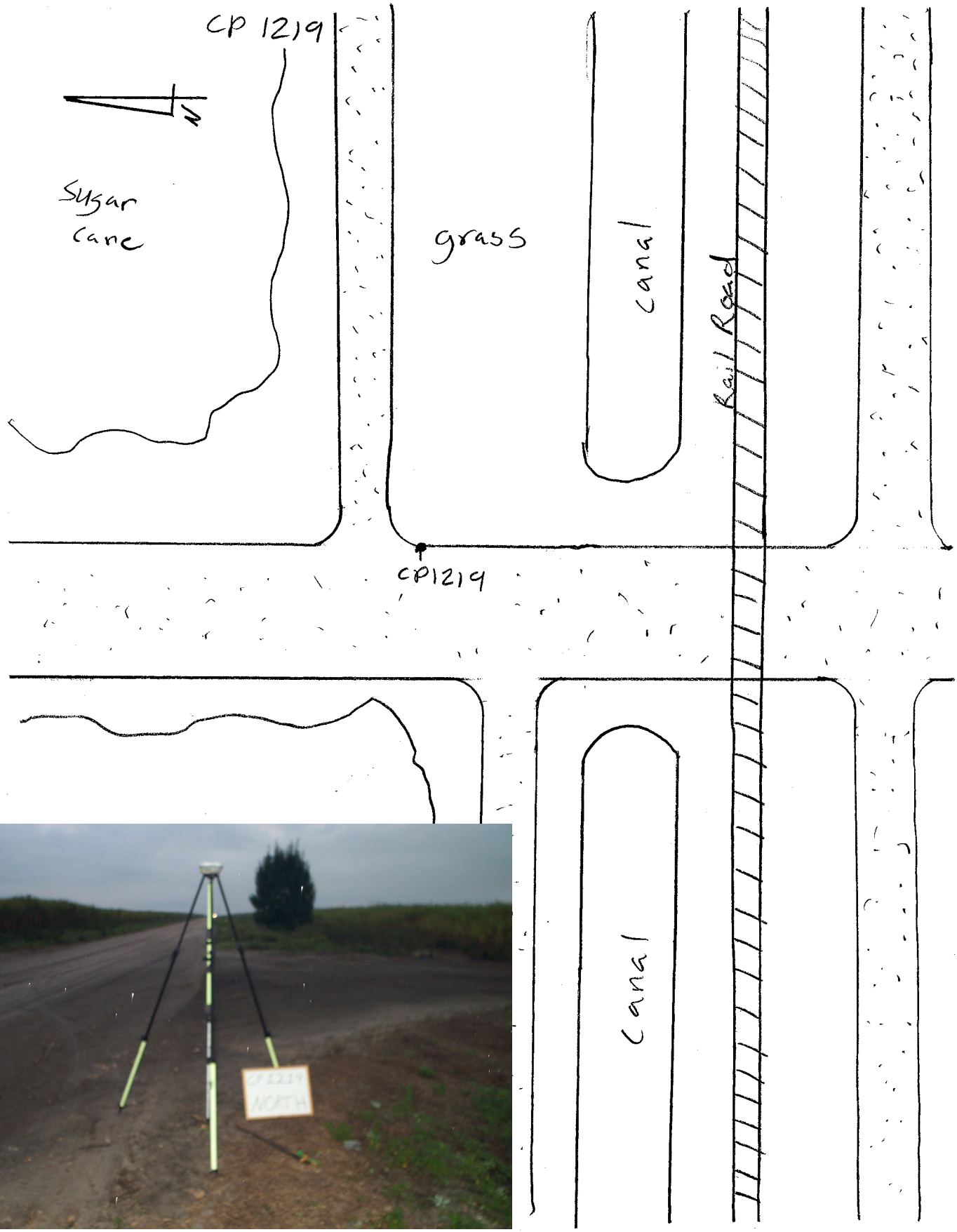

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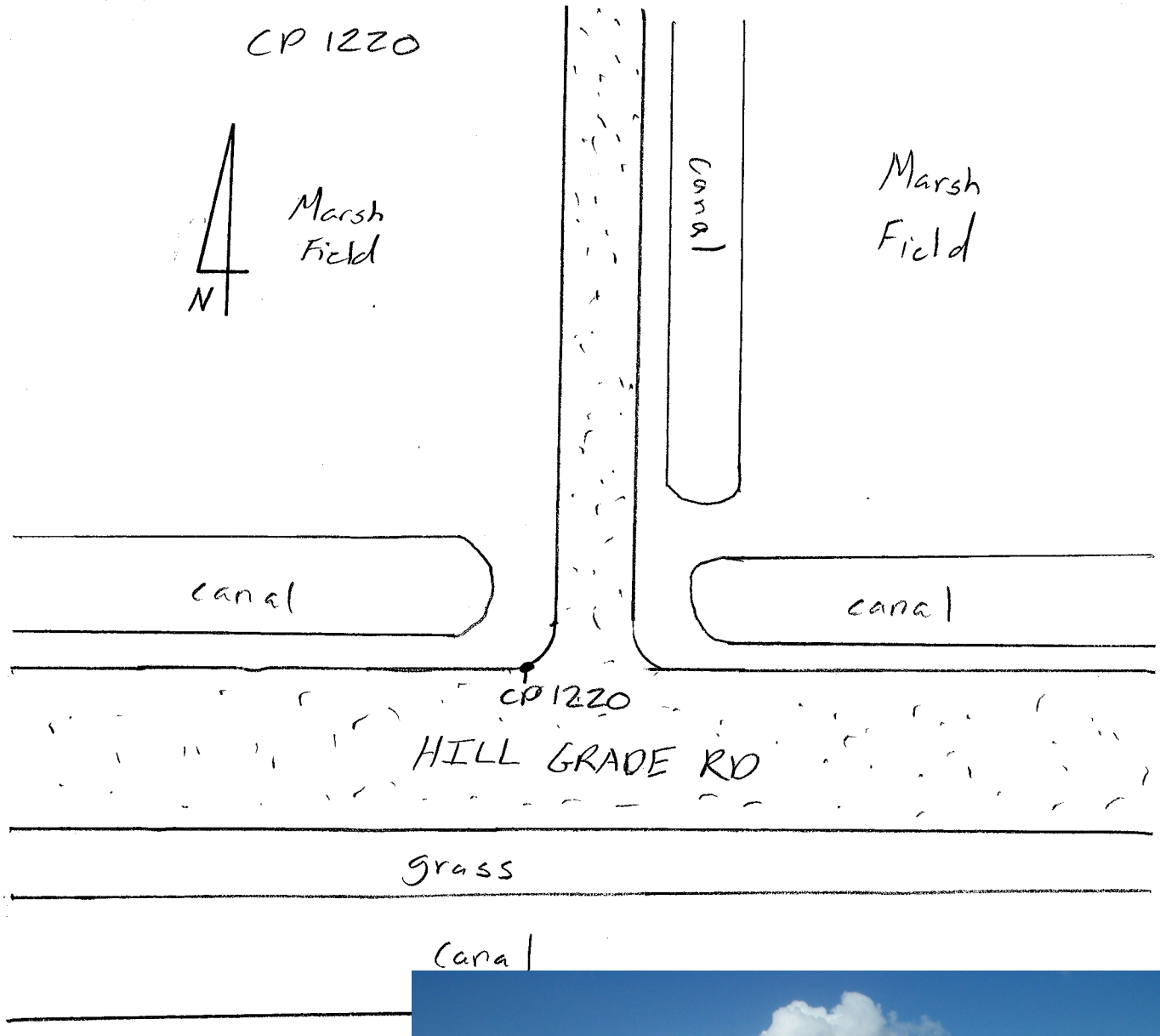

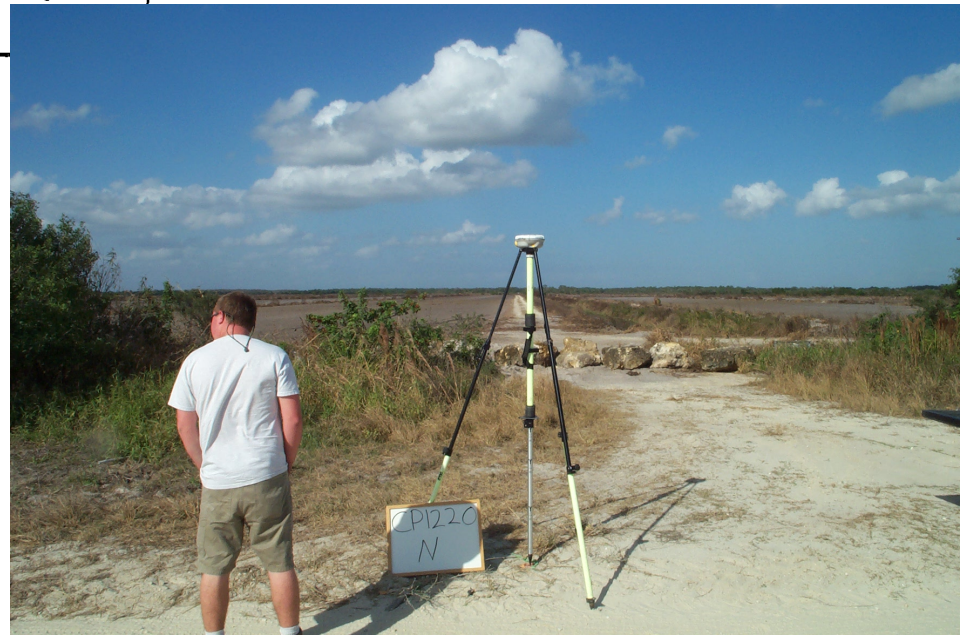

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PROJECT _____

SUBJECT _____

BY _____



CP 1221

N

Private Driveway

Brick Wall

Brick Wall

canal

canal

CP1221

FLAG HOLE RD

Guard Rail

Vegetation

grass Field

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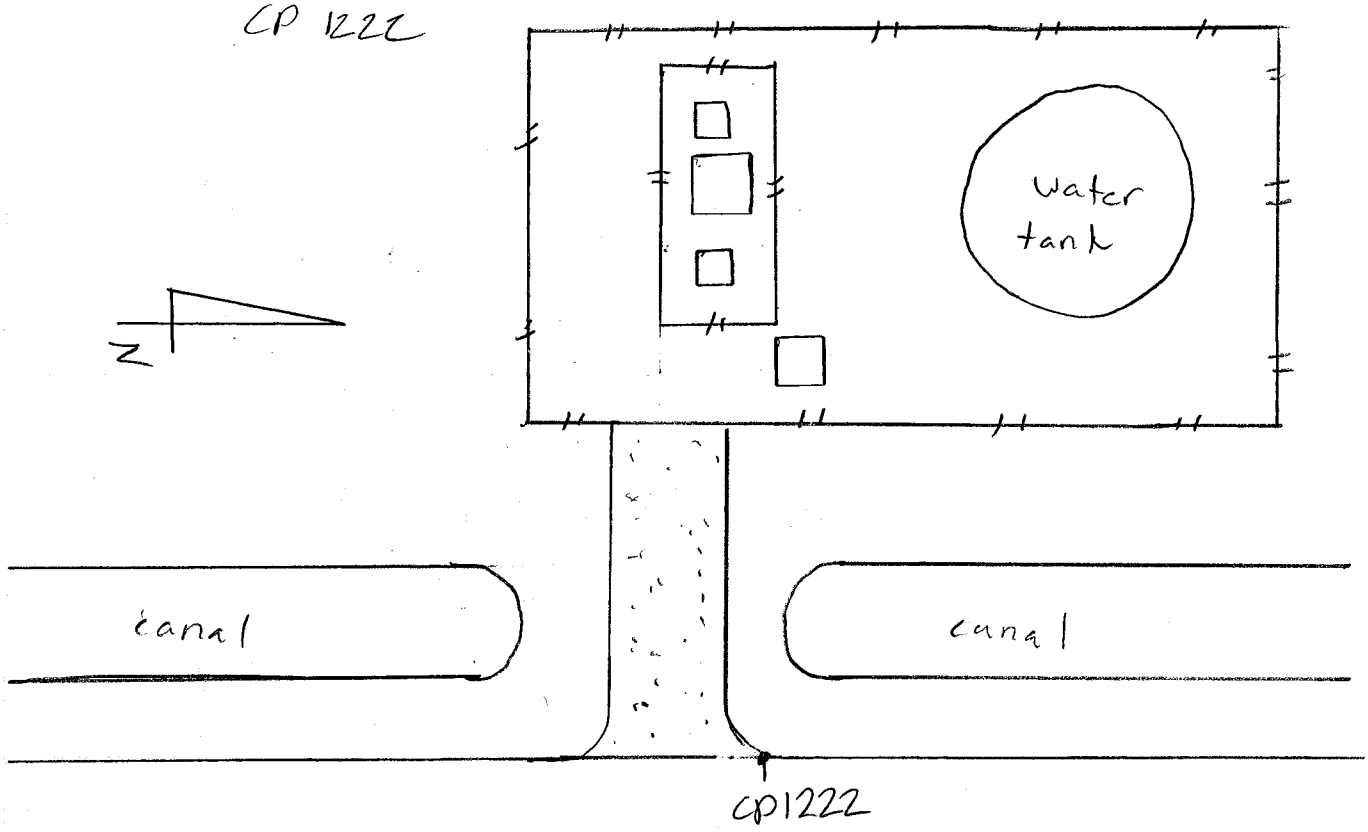
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1222



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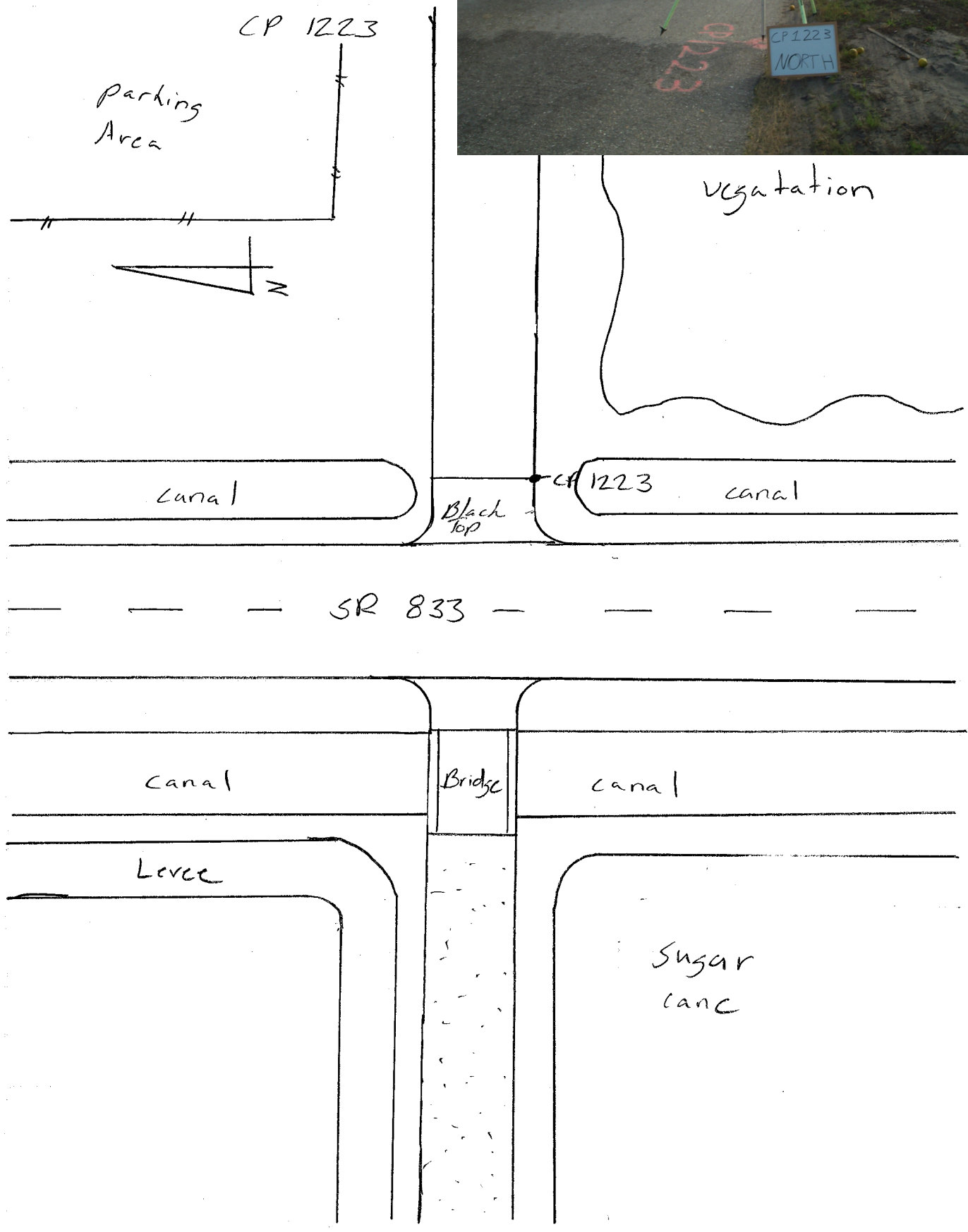
PROJECT _____

SUBJECT _____

BY _____





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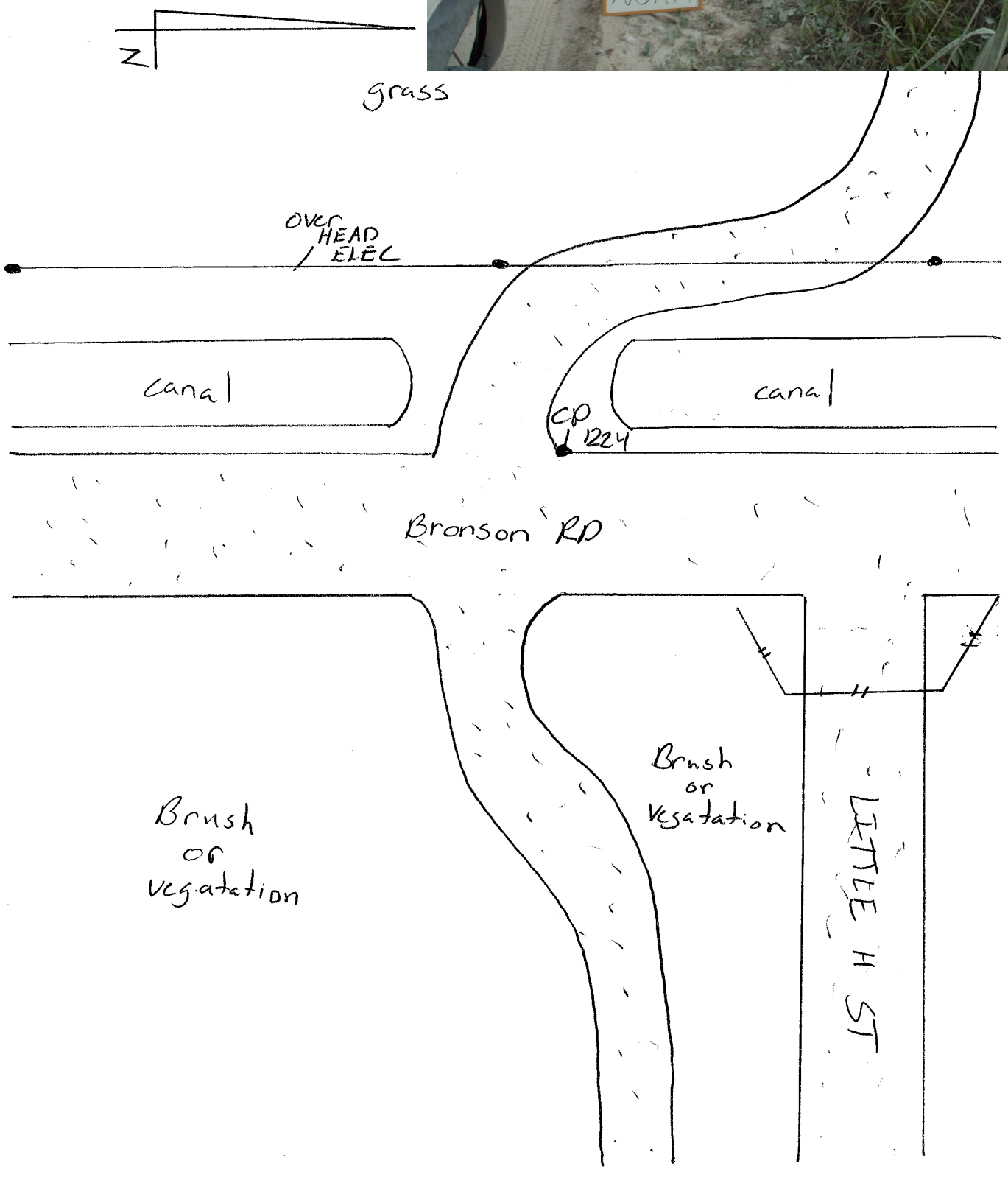
PROJ

SUBJ

BY

CP 1224





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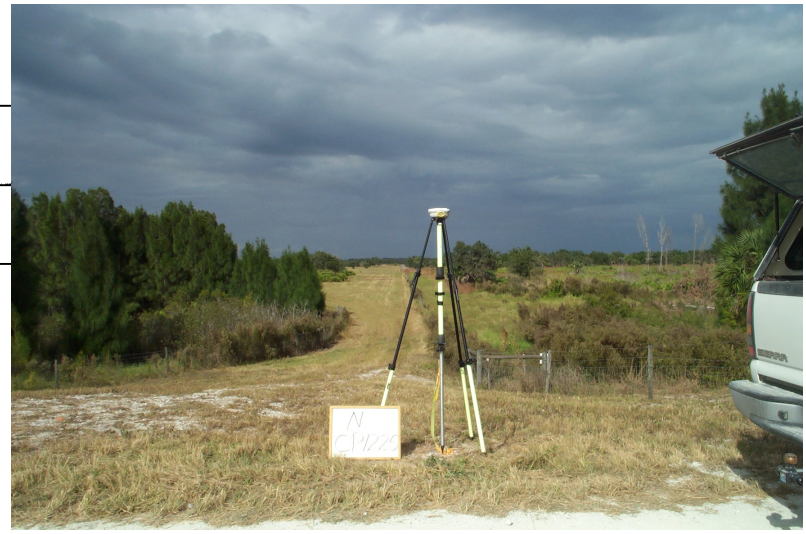
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

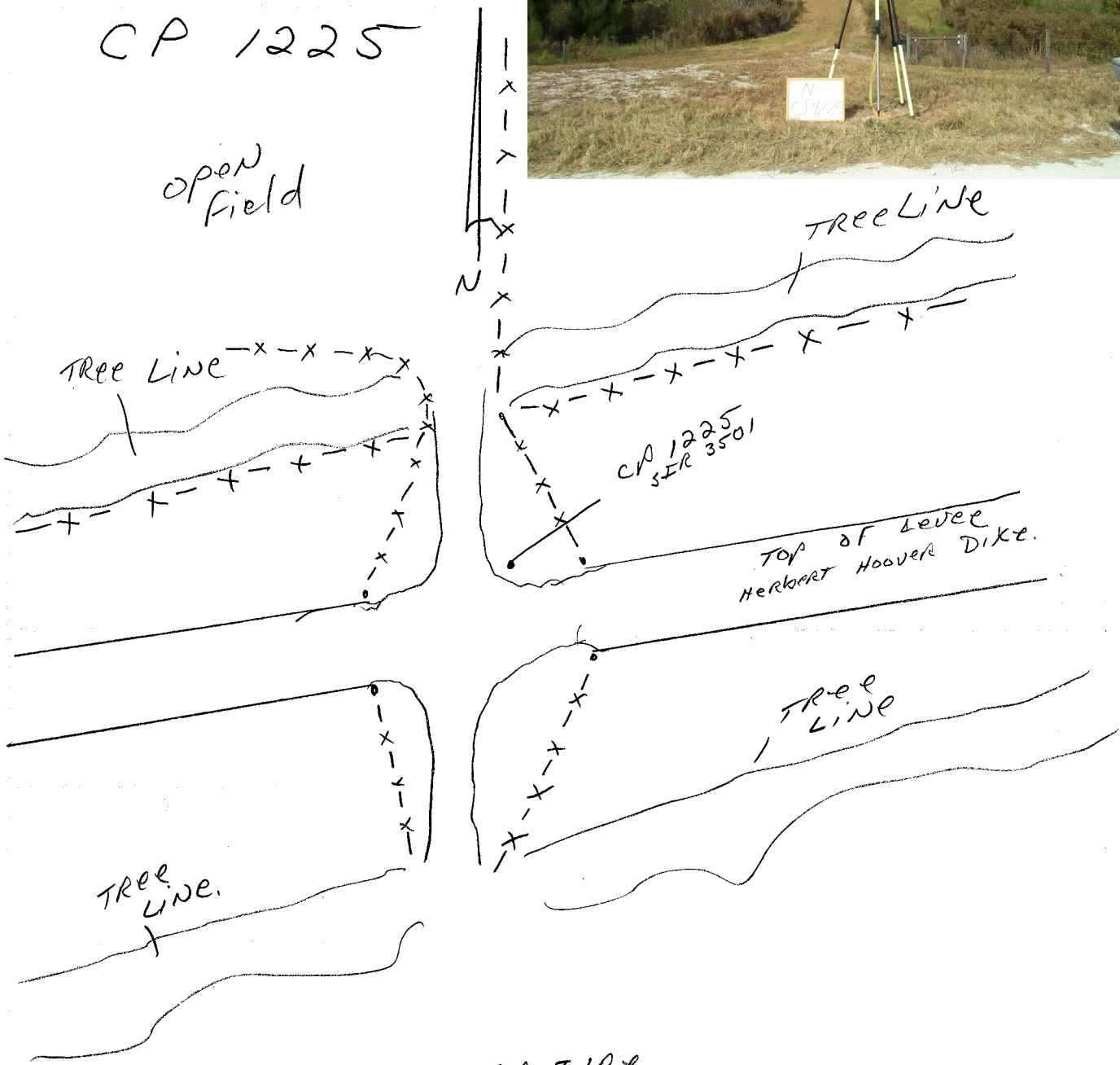
PROJECT _____

SUBJECT _____

BY _____



CP 1225



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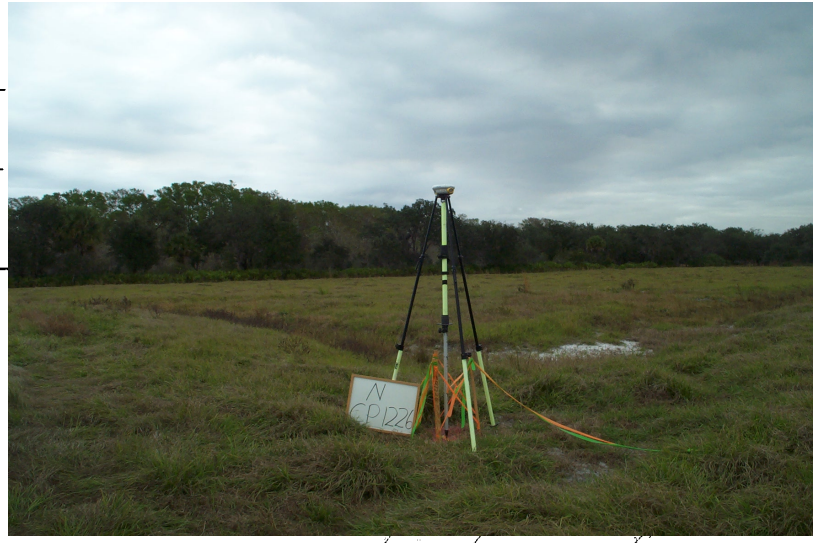
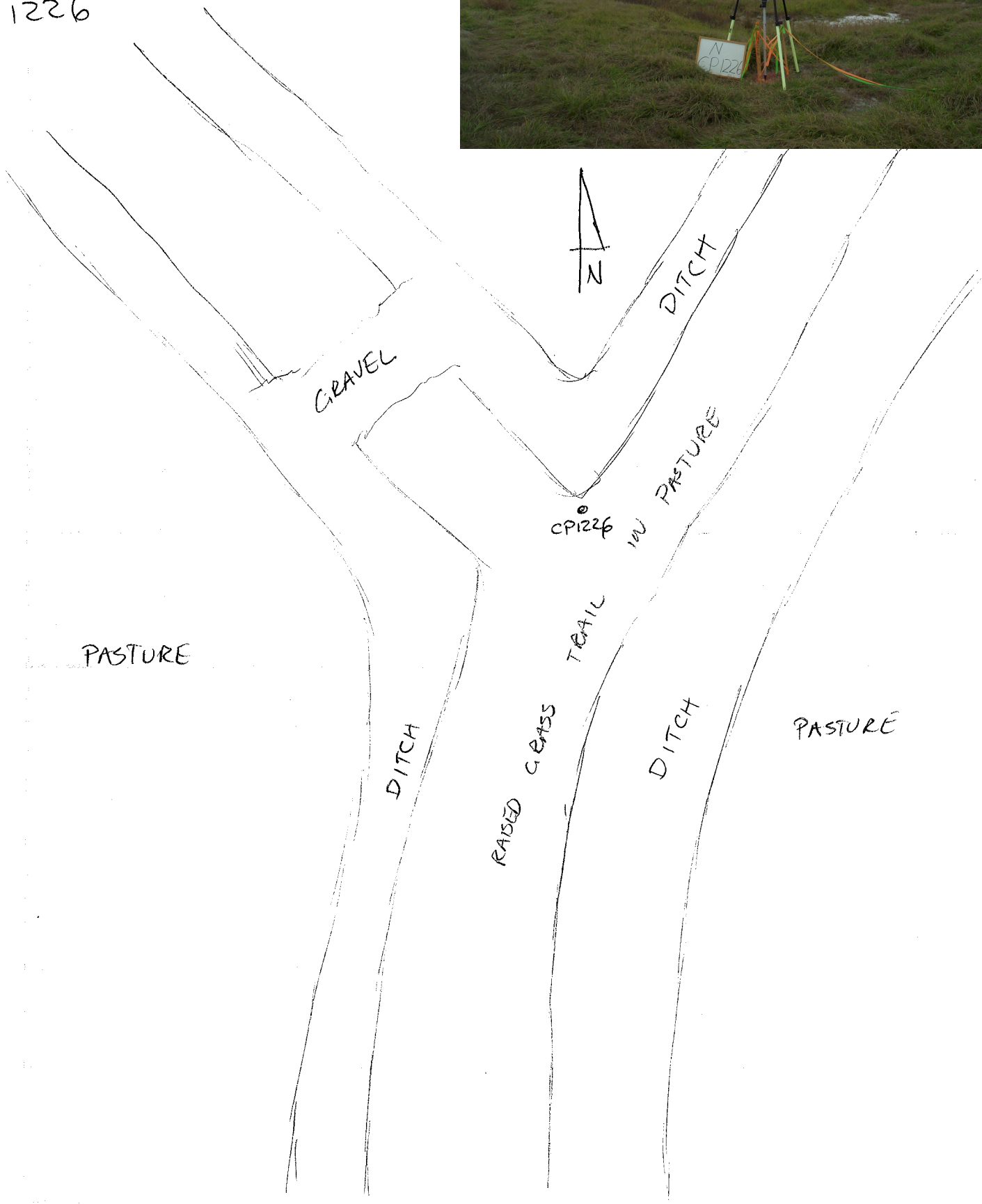
PROJECT

SUBJECT

BY _____



CP1226



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PROJECT

SUBJECT

BY



CP 1227

N

COW PASTURE

CP 1227
SIR 3501

TRAIL IN COW PASTURE.

TREE ROW

DITCH.

COW PASTURE

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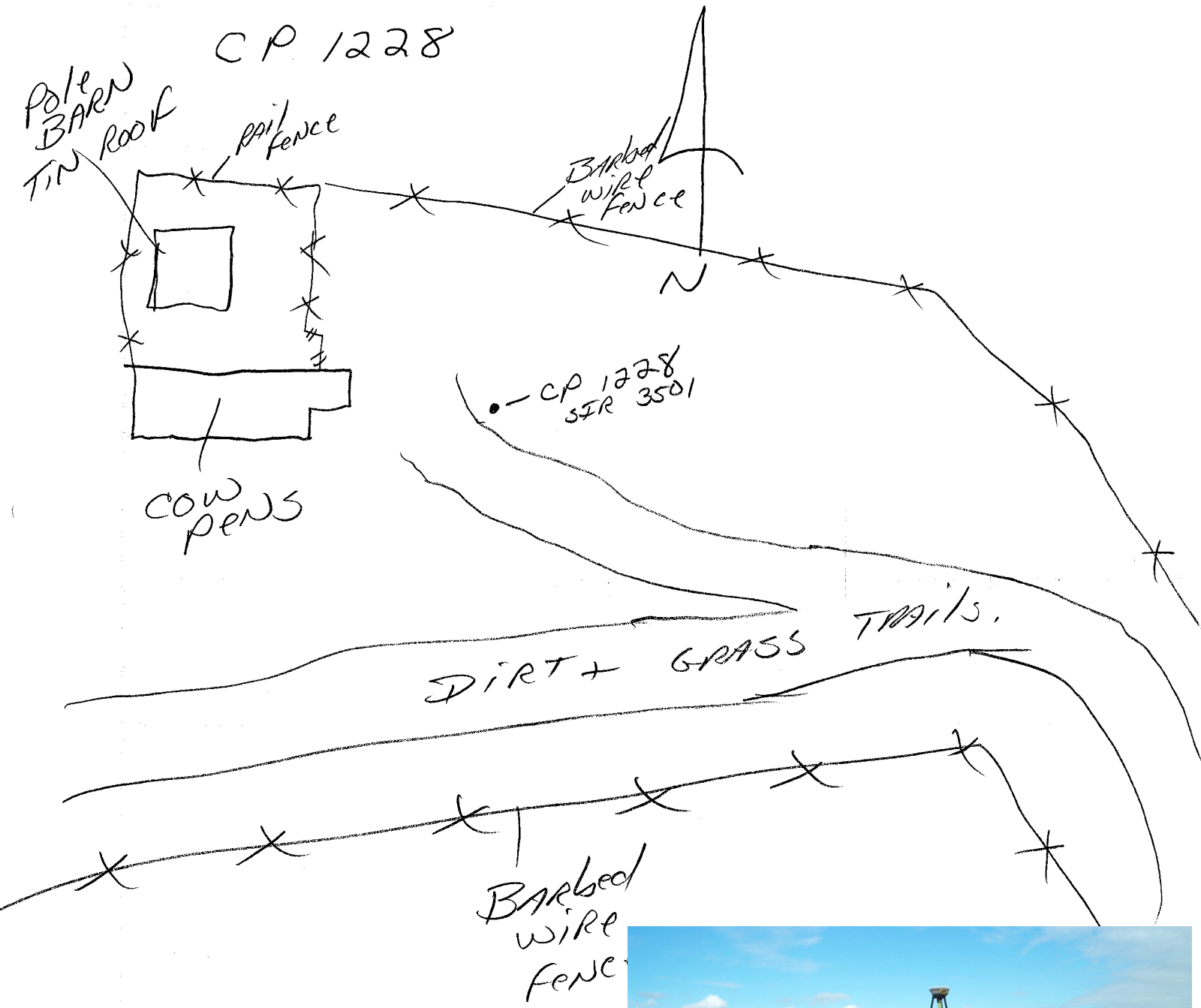
SUBJECT _____ DATE _____

BY _____ JOB NO. _____





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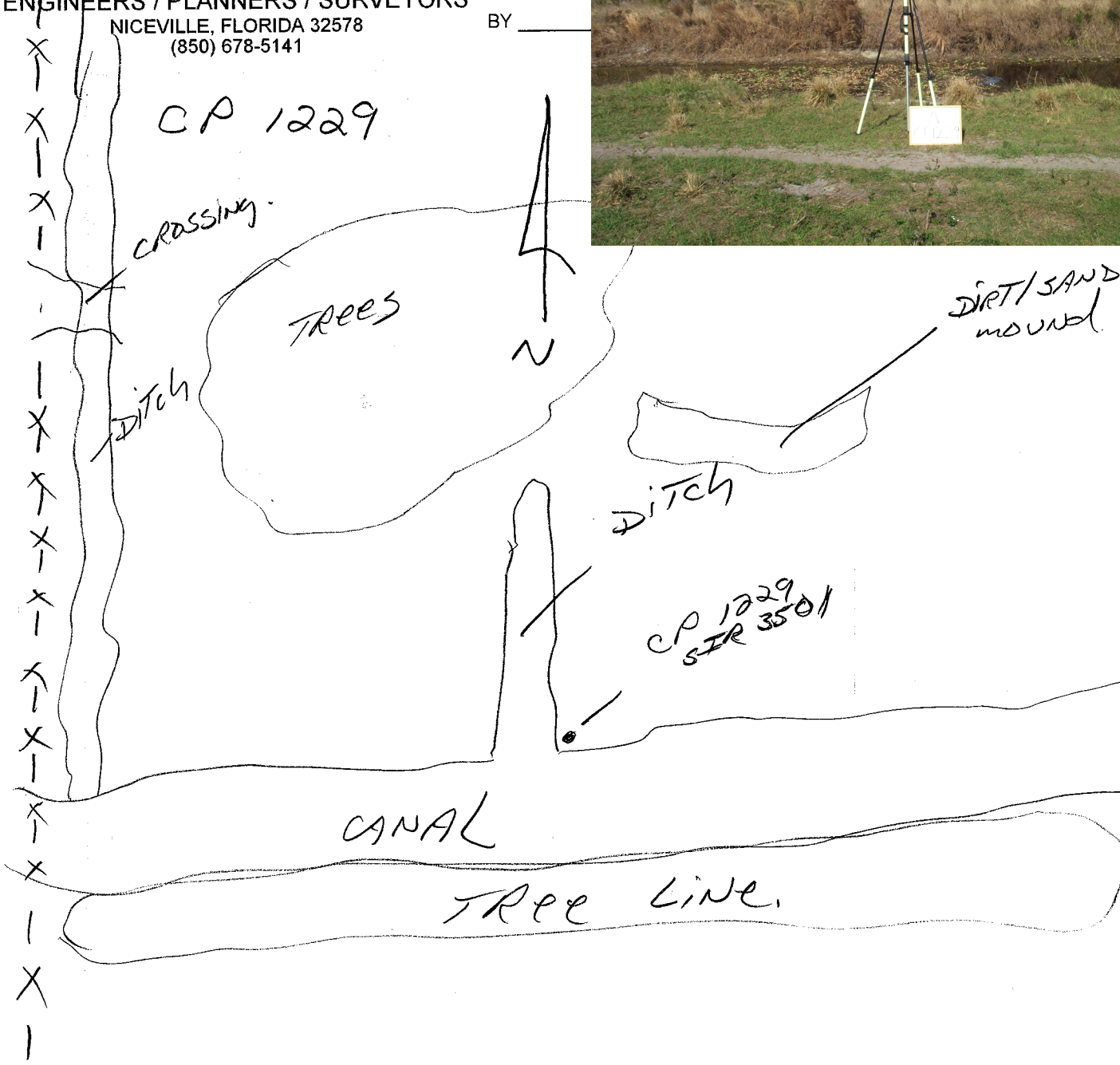

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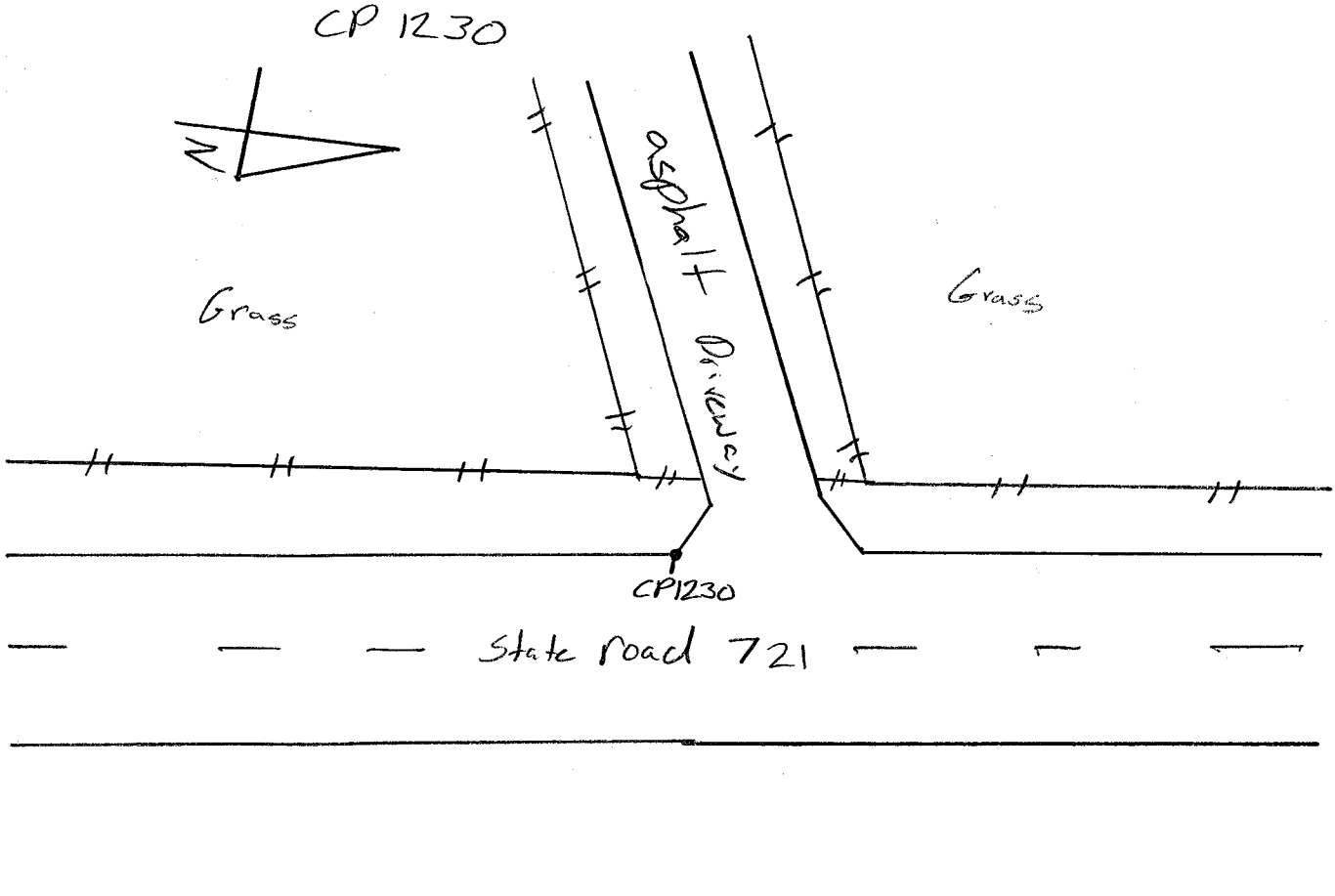

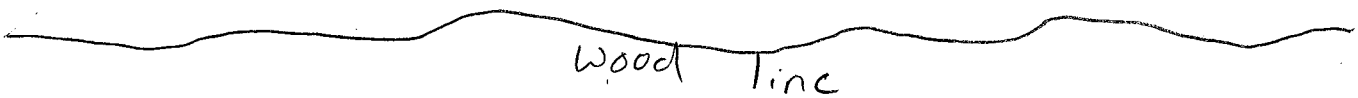



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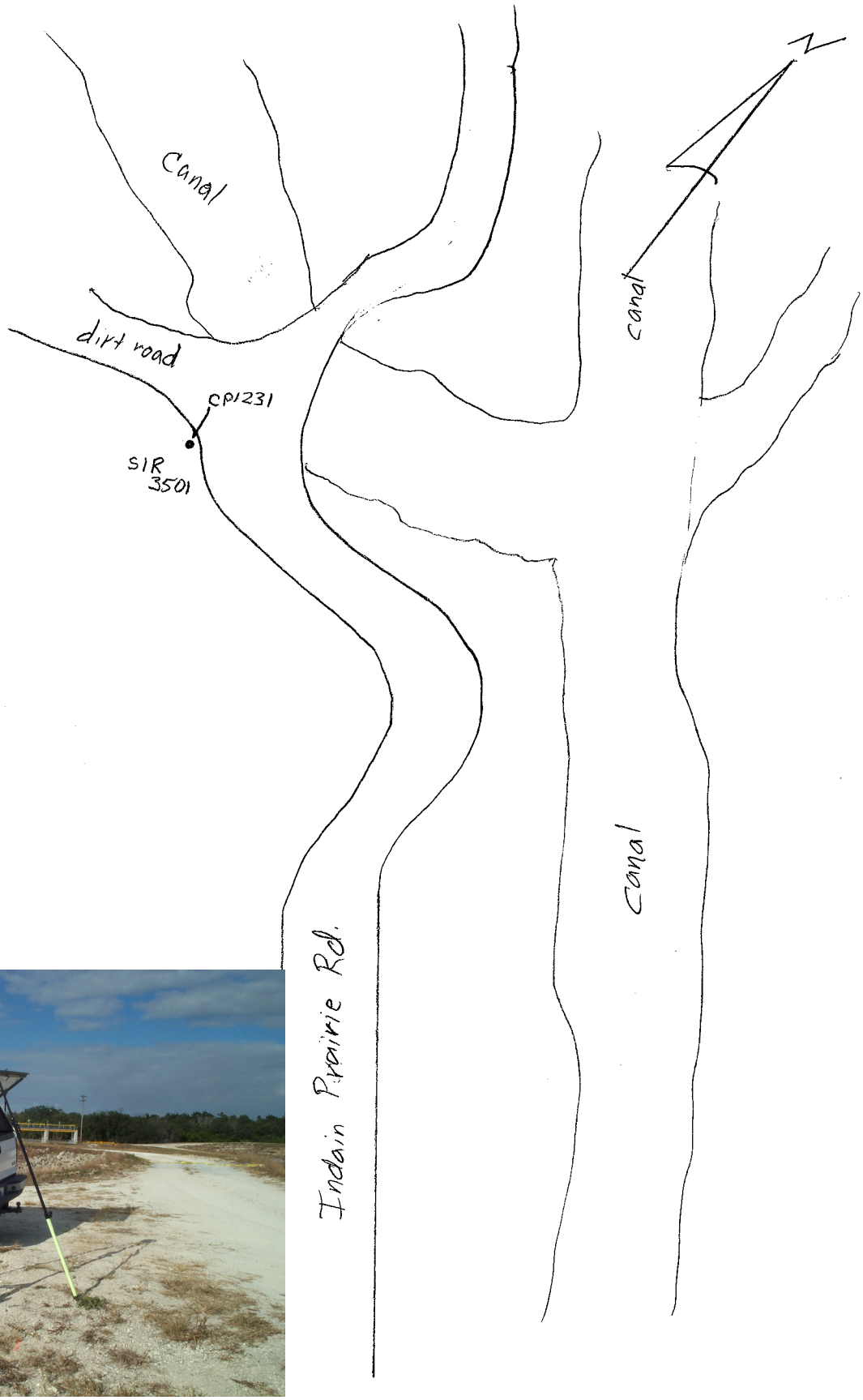
CP-1231





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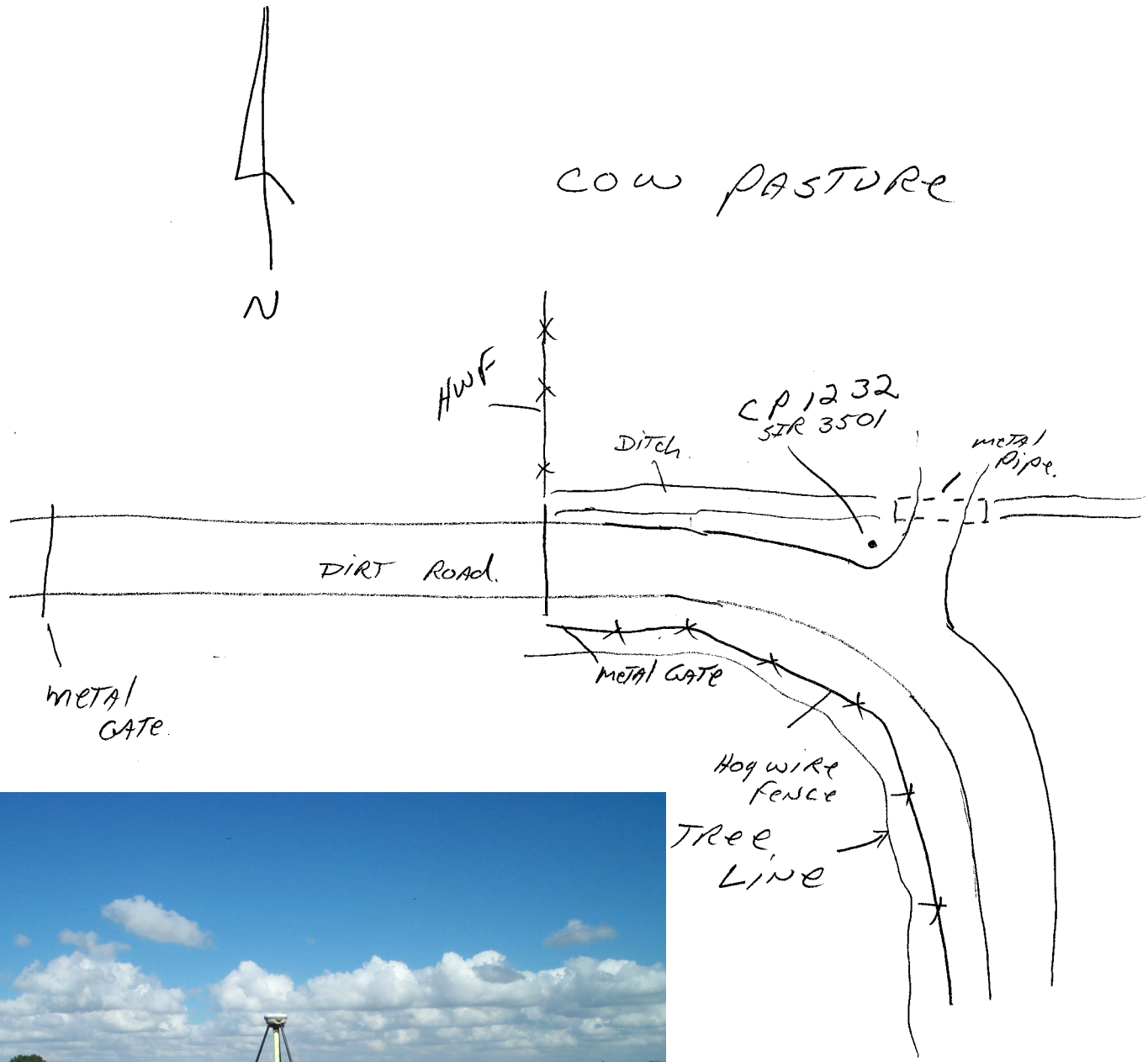
CP 1232





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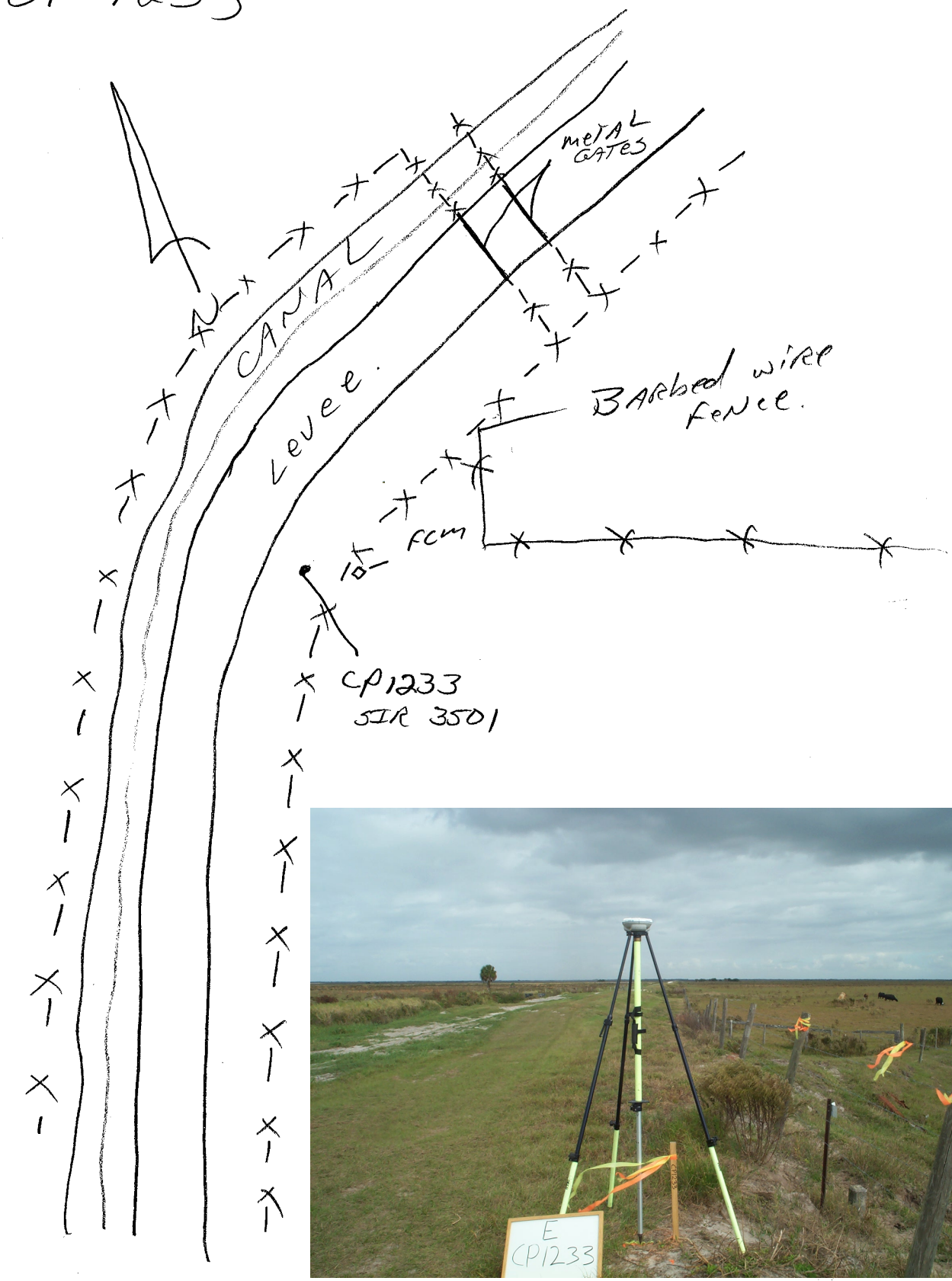
CP 1233



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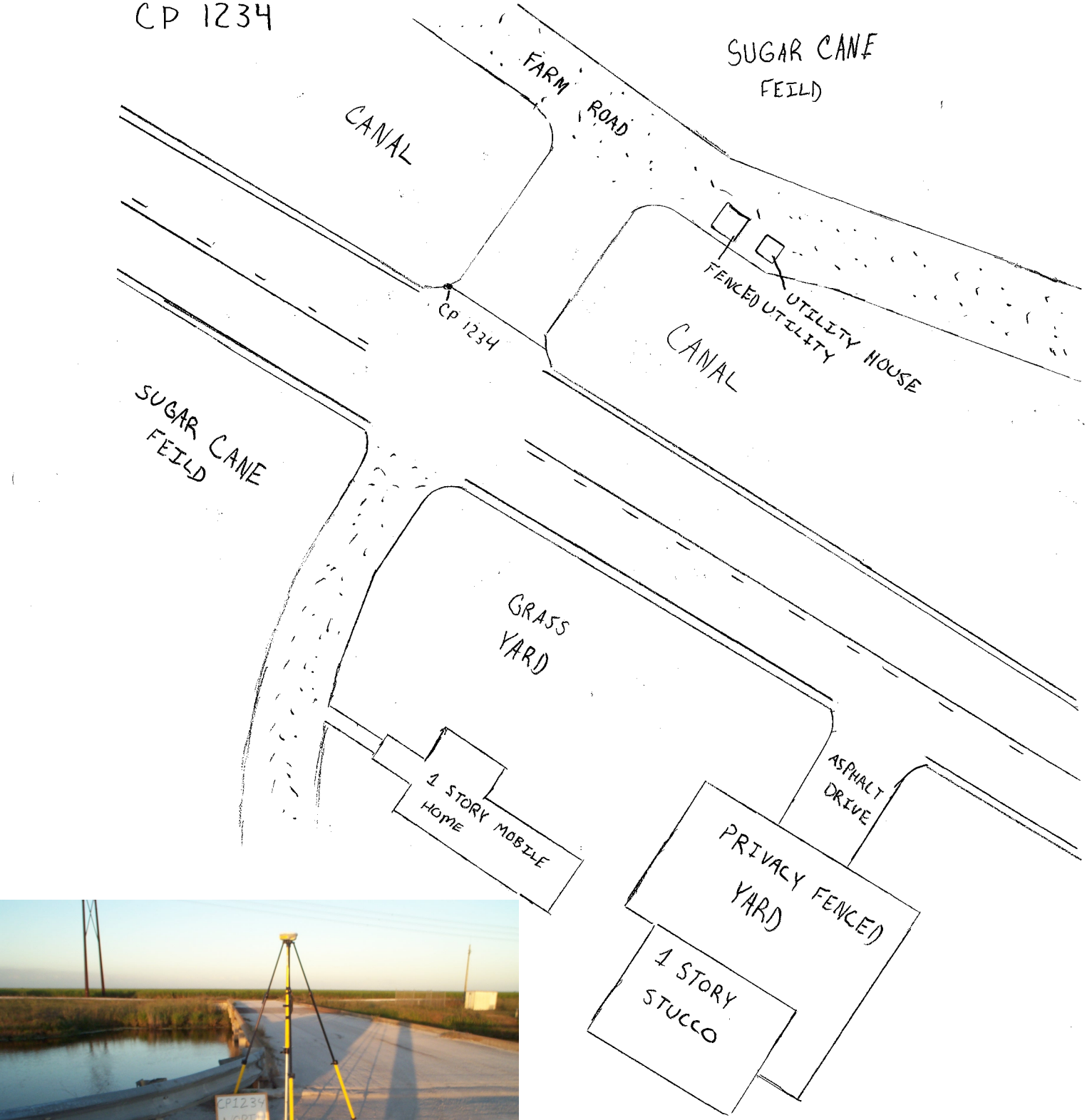
CP 1234



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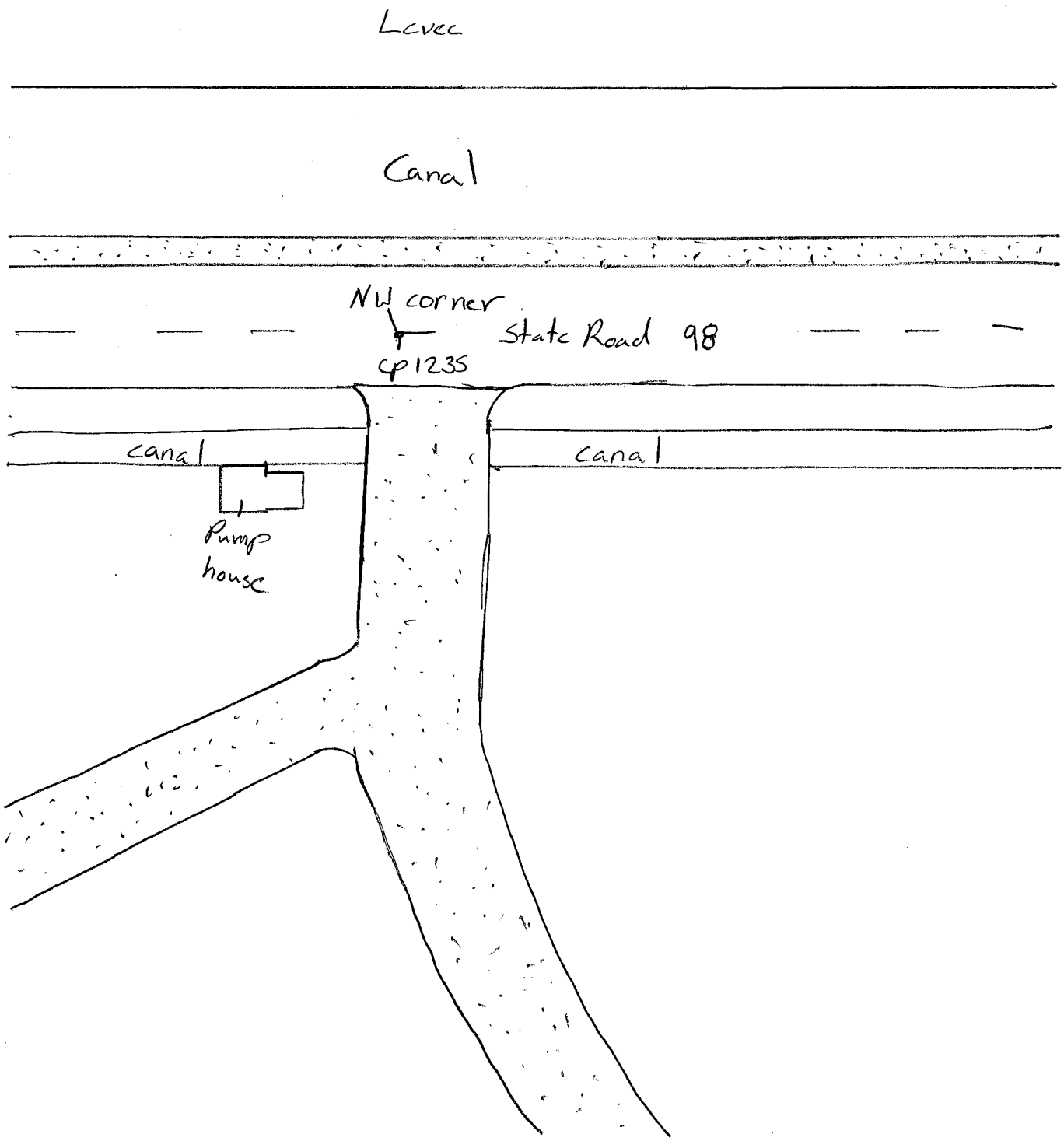
CP 1235



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P
S
B



CP1236

N

Sugar cane

canal

canal

Sugar cane

canal

CP1236

Strawberry's

canal

Sugar cane

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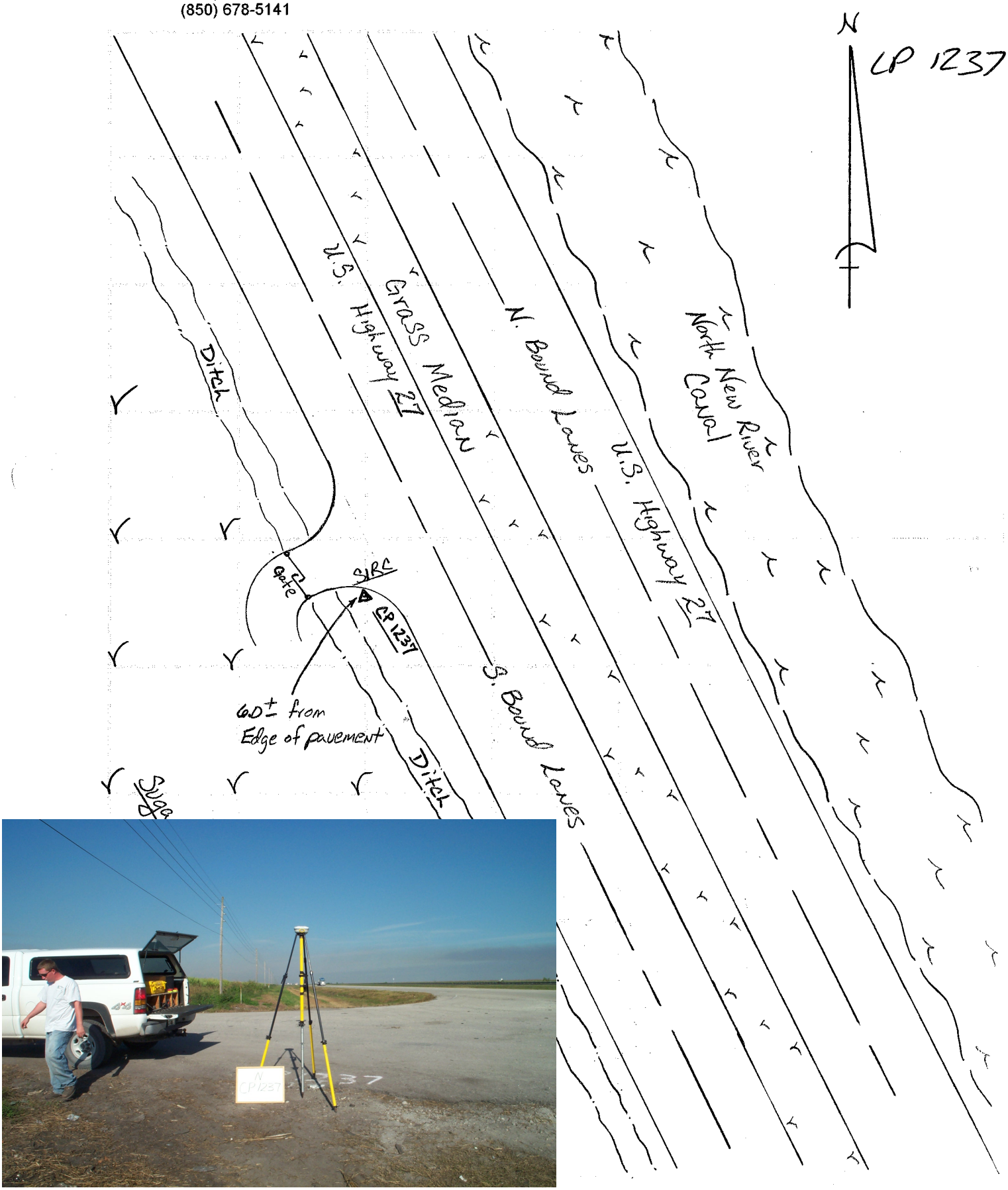
SUBJECT _____ DATE 10/13/07

BY _____ JOB NO. _____



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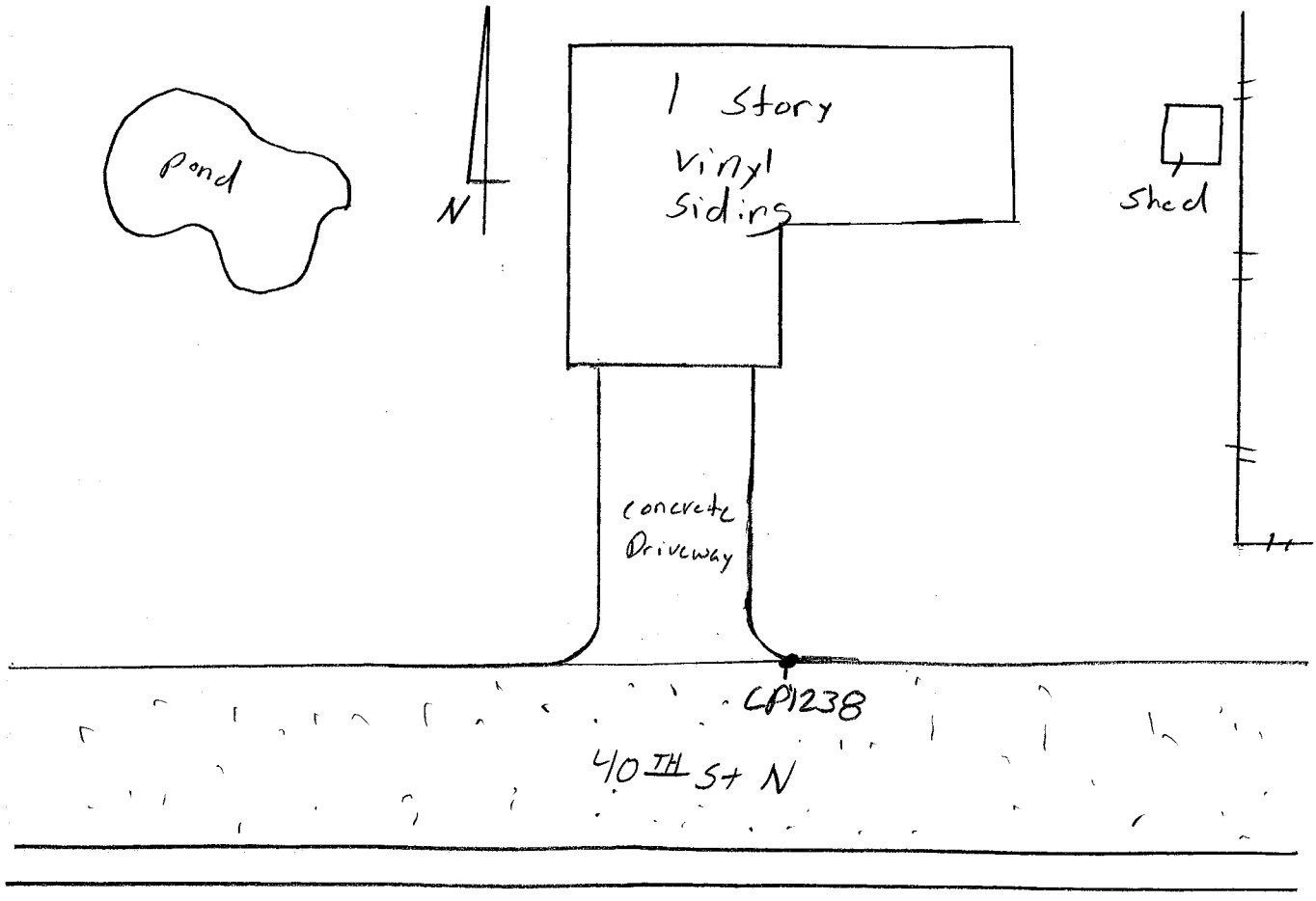
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1238





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BY _____ JOB NO. _____

CP1239

Fruit Trees

Wood's

Private Driveway

CP1239



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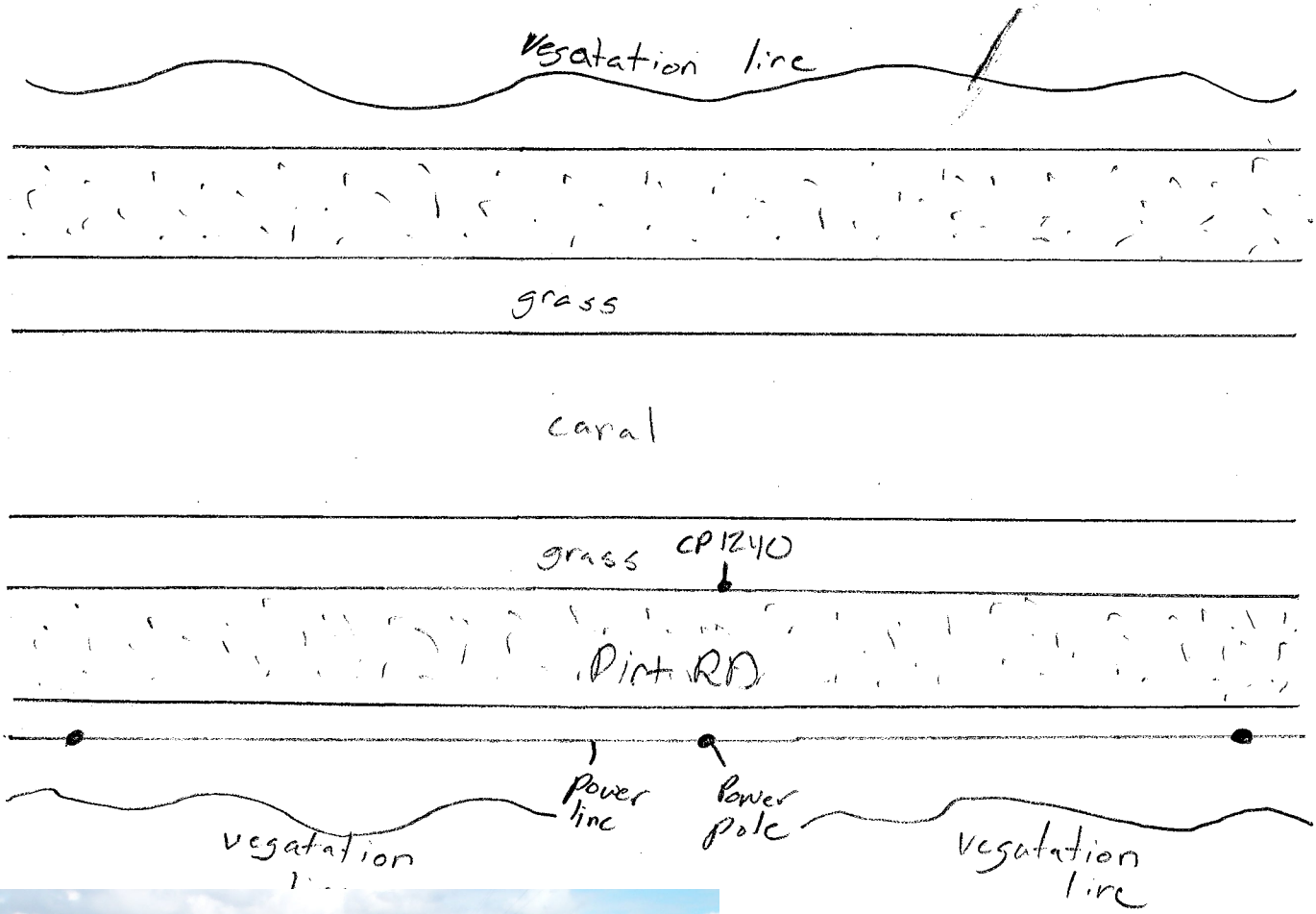
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP1240







Big oak tree

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

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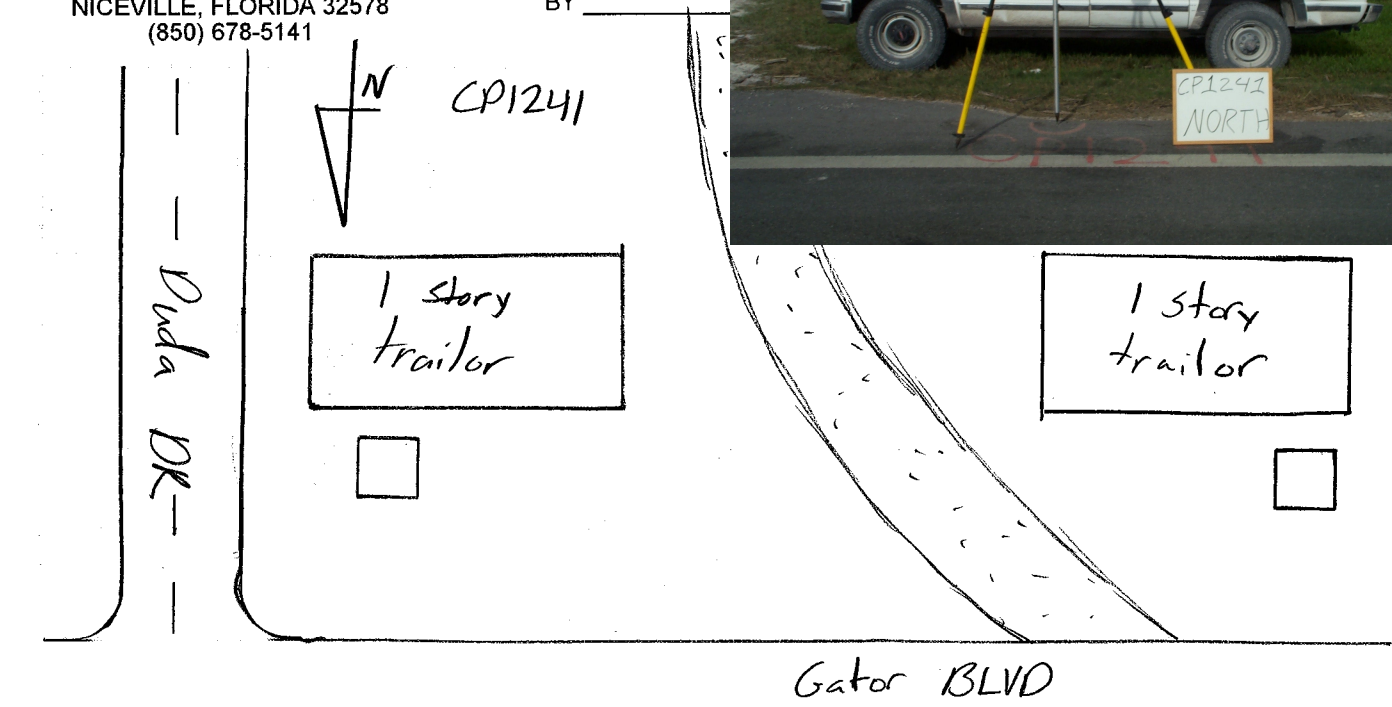
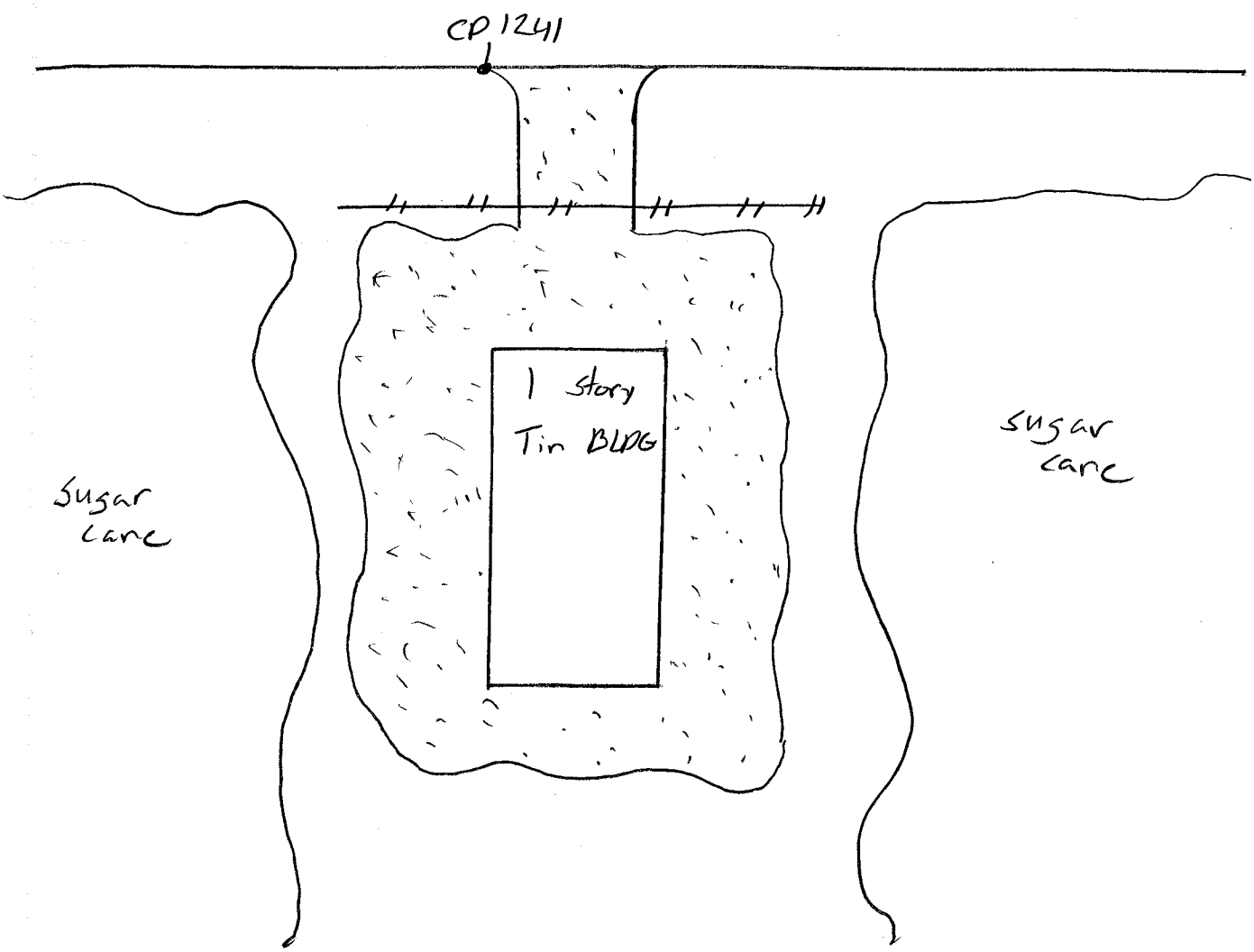
PROJECT

SUBJECT

BY







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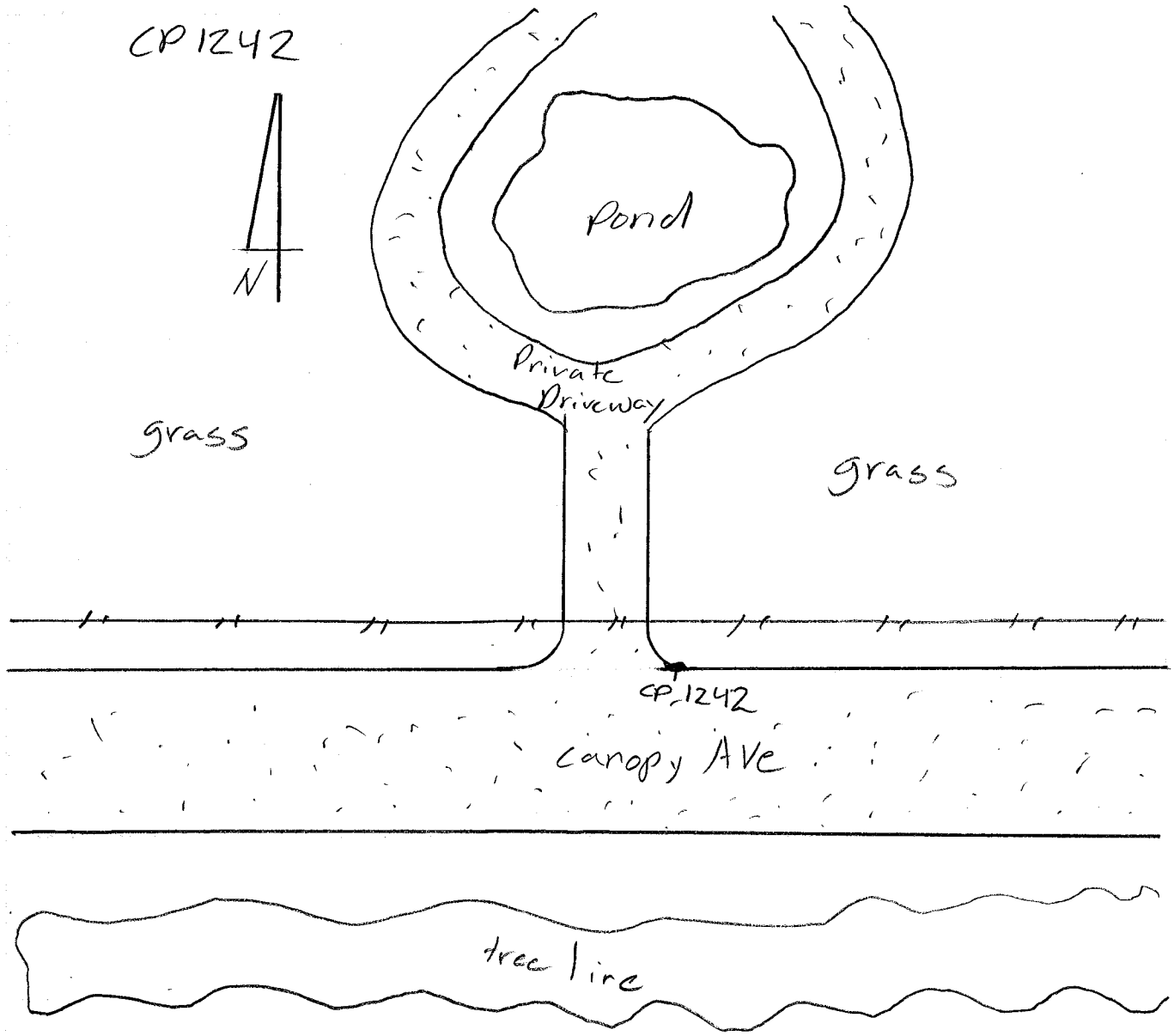



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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1243

N

Wet Marsh Land

Levee RD. Dirt

grass

canal

grass

Levee RD Dirt

CP1243



Wet Marsh Land

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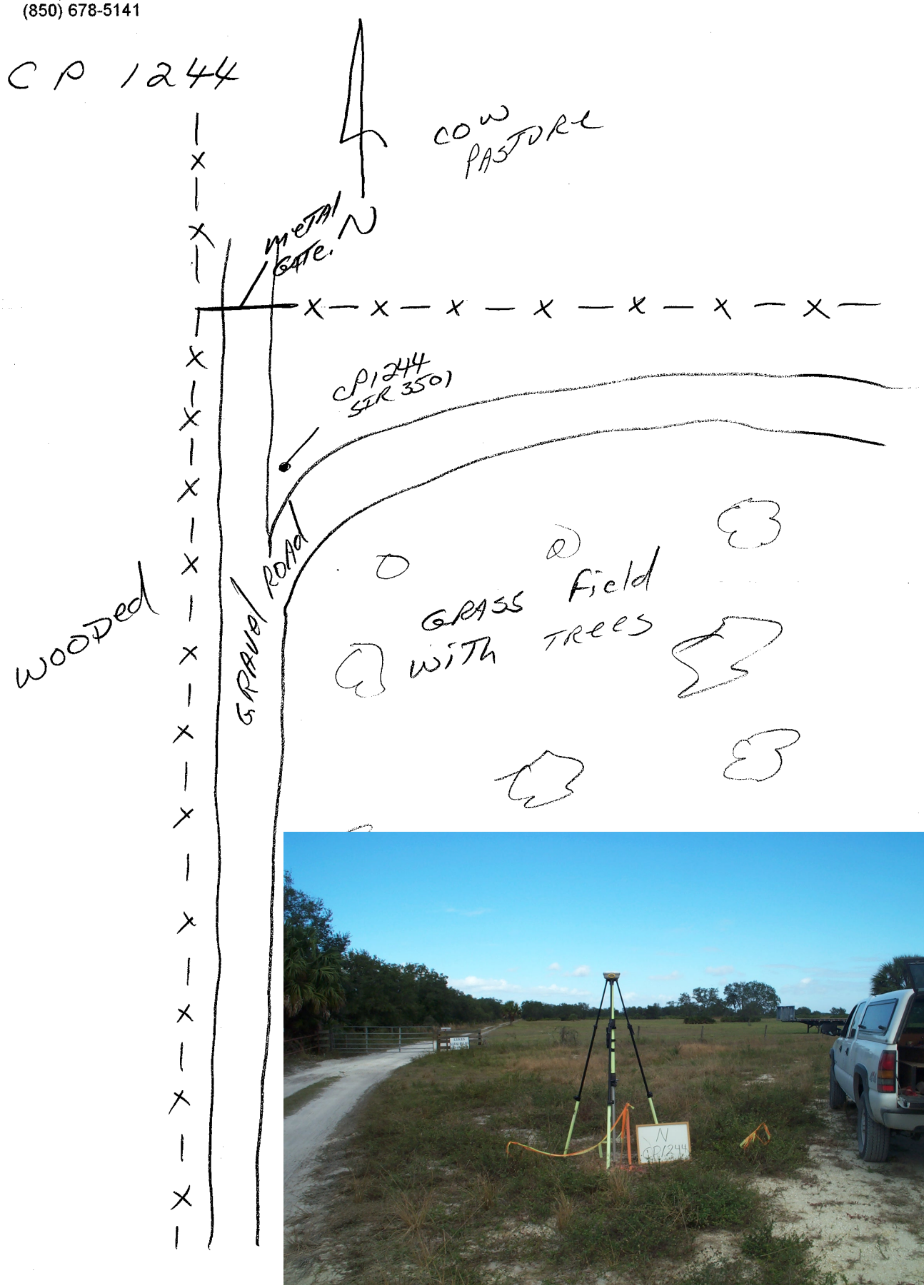

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PROJECT _____

SUBJECT _____

BY _____



CP 1245

Z

Sugar cane

Canal

Sugar cane

Canal

Canal

OVER HEAD ELEC

OVER HEAD ELEC

Canal

Sugar cane

Sugar cane

GUSTIN, COTHERN & TUCKER, INC.

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PROJEC

SUBJEC

BY



CP 1246

1 Story Stucco

N

67th St N

1 Story Wood siding

Pond

CP 1246

Avocado BLVD

Woods

1 story Stucco

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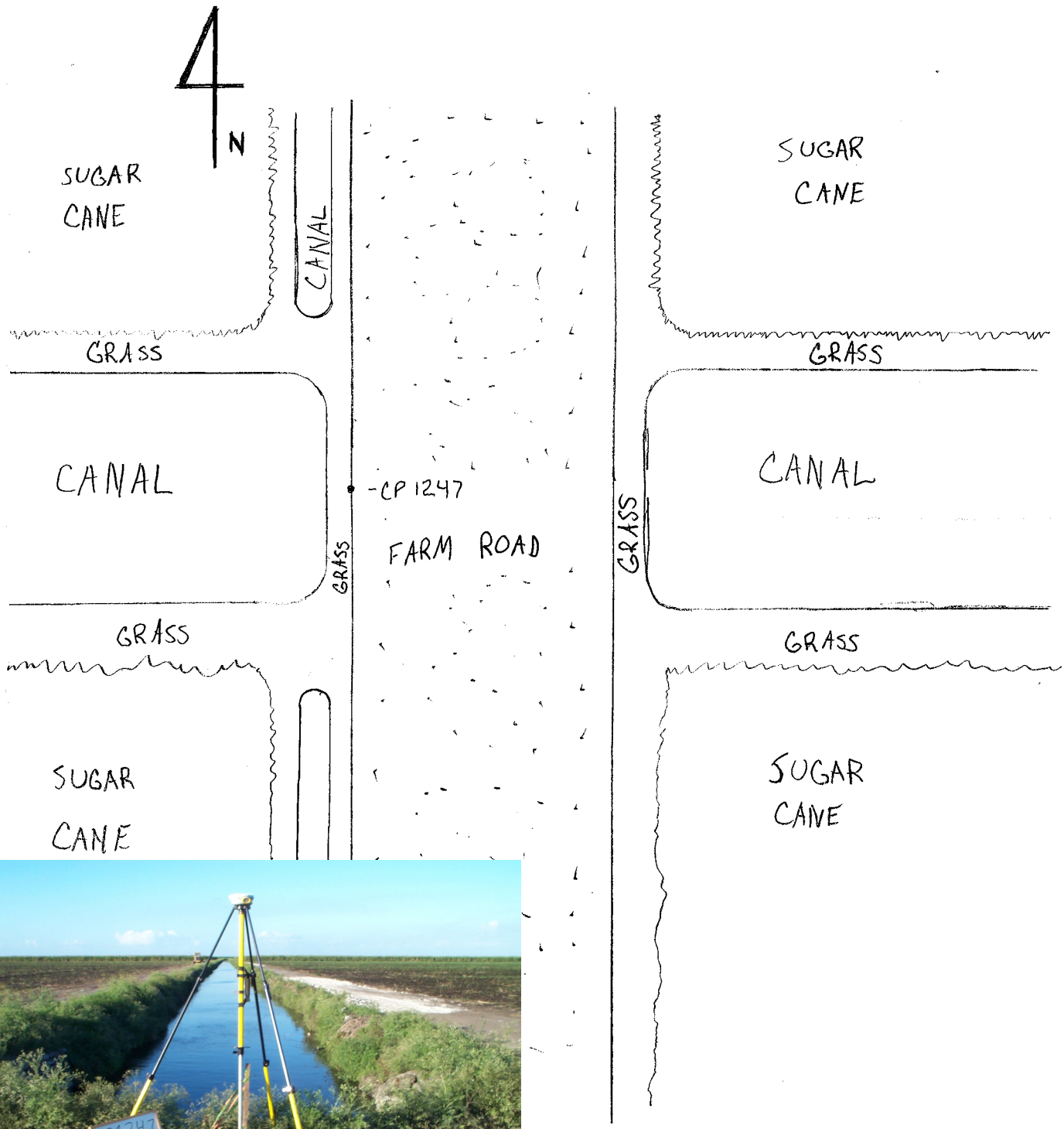
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 1247



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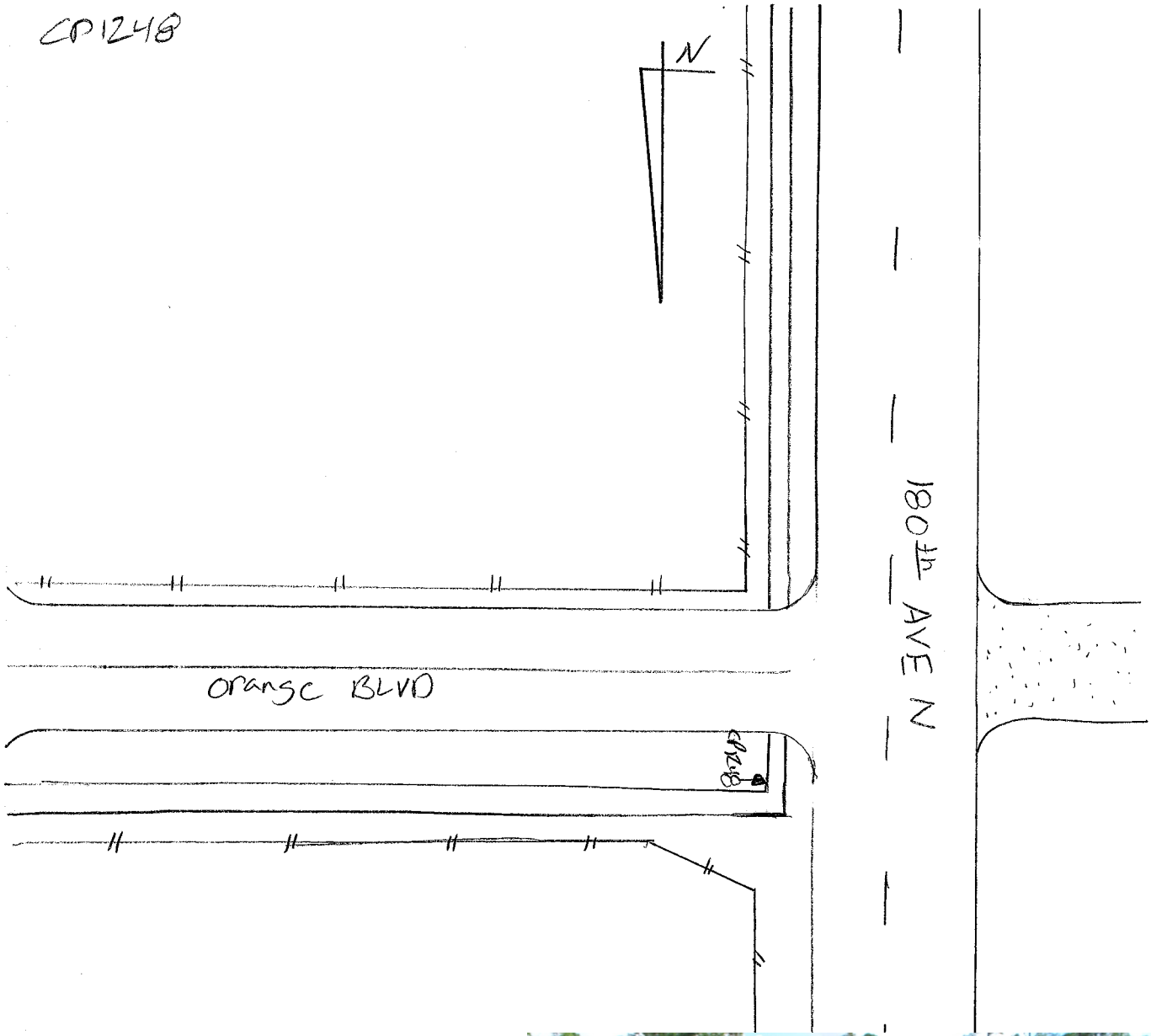
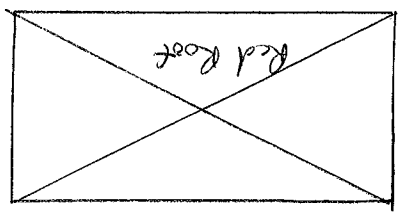
BY _____ JOB NO. _____

CP1248







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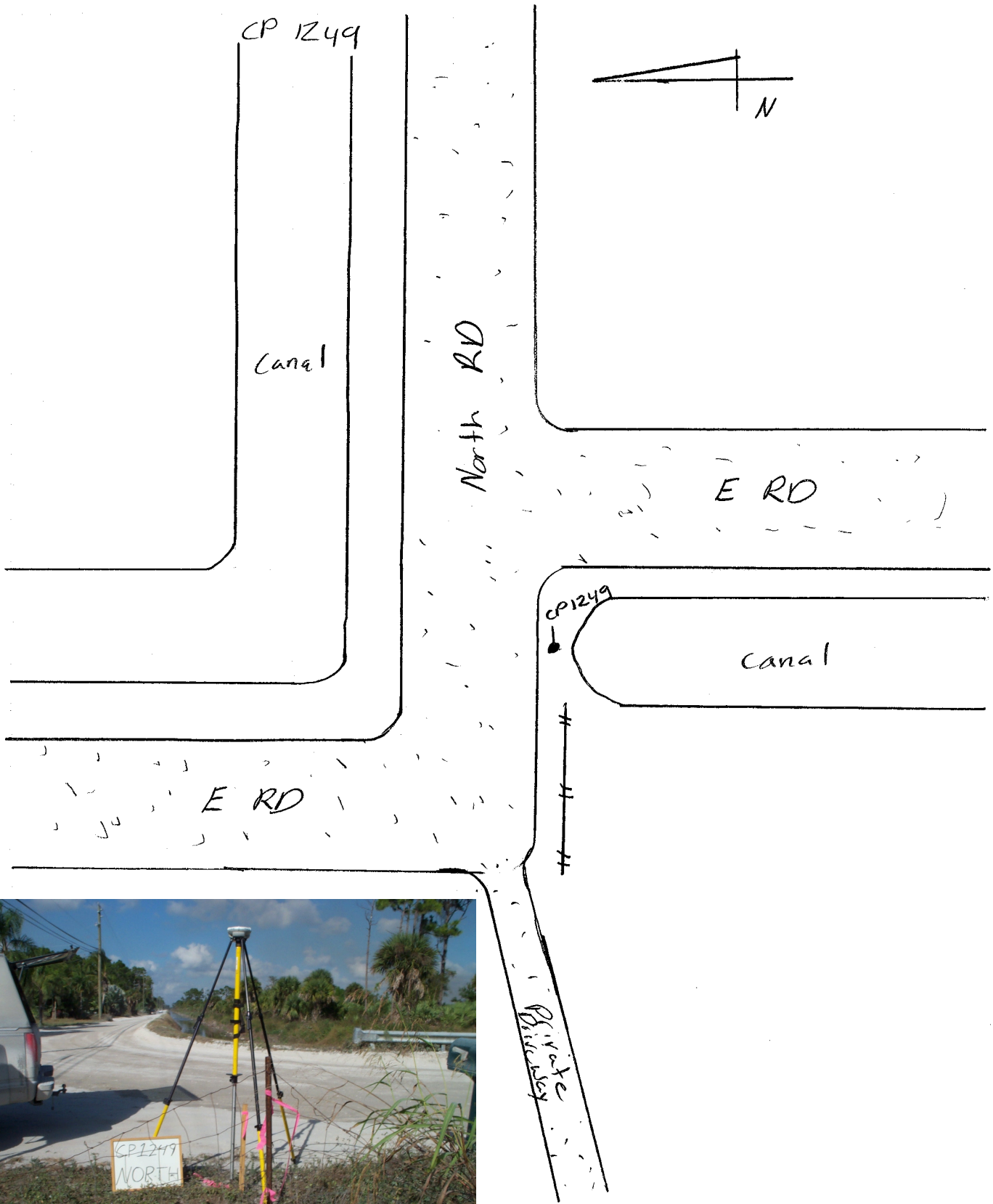

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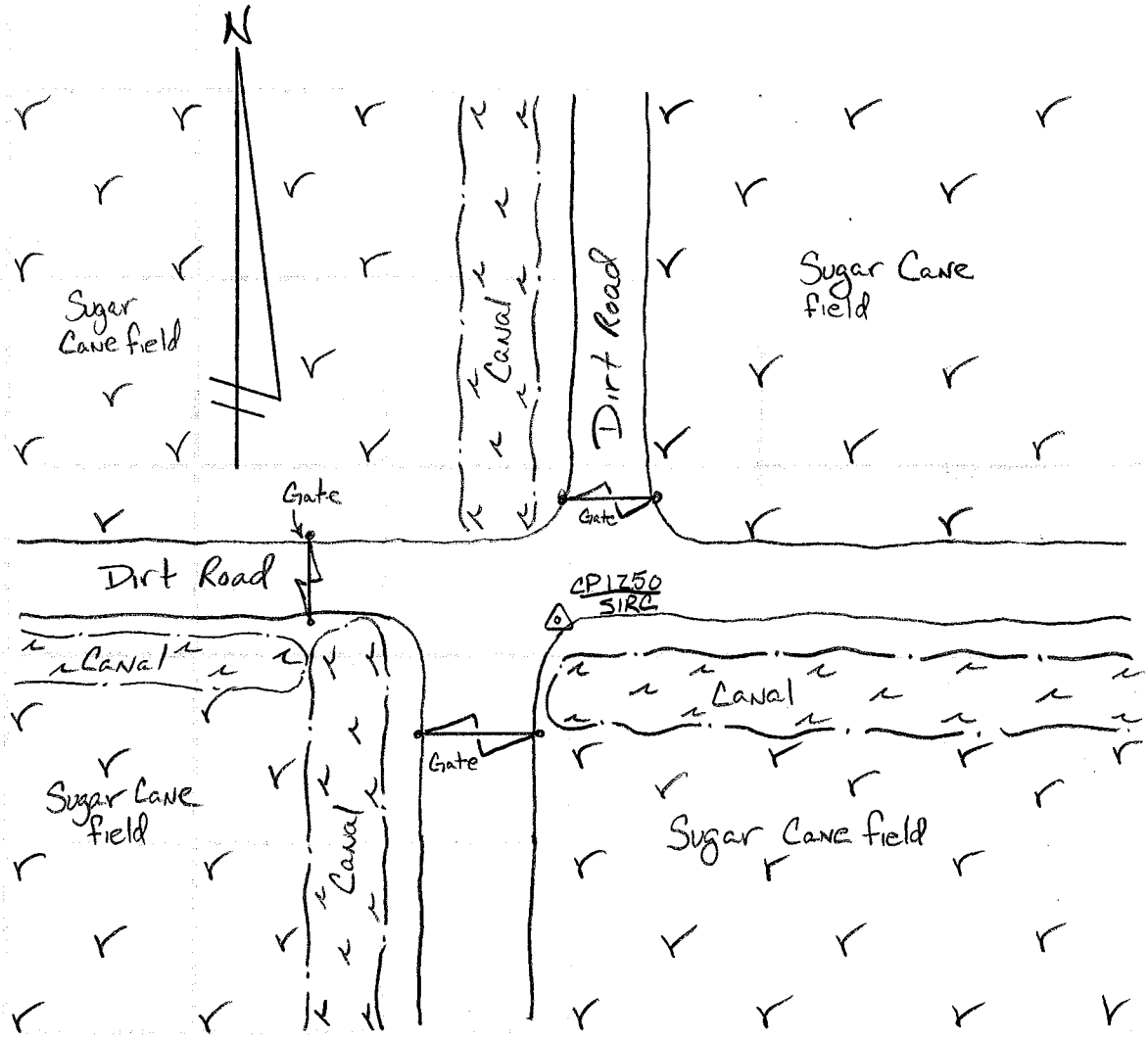
PR

SU

BY

CP 1250





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PRO

SUB

BY

CP3000

N

1Story Brown Stucco

#101

Sherwood

1Story Yellow Stucco

Royal Palm Bch. Blvd.

Parkwood Dr.

#223

1Story Gray Stucco

Parkwood Dr S

SIR 3501

CP3000

#234

1Story White Stucco

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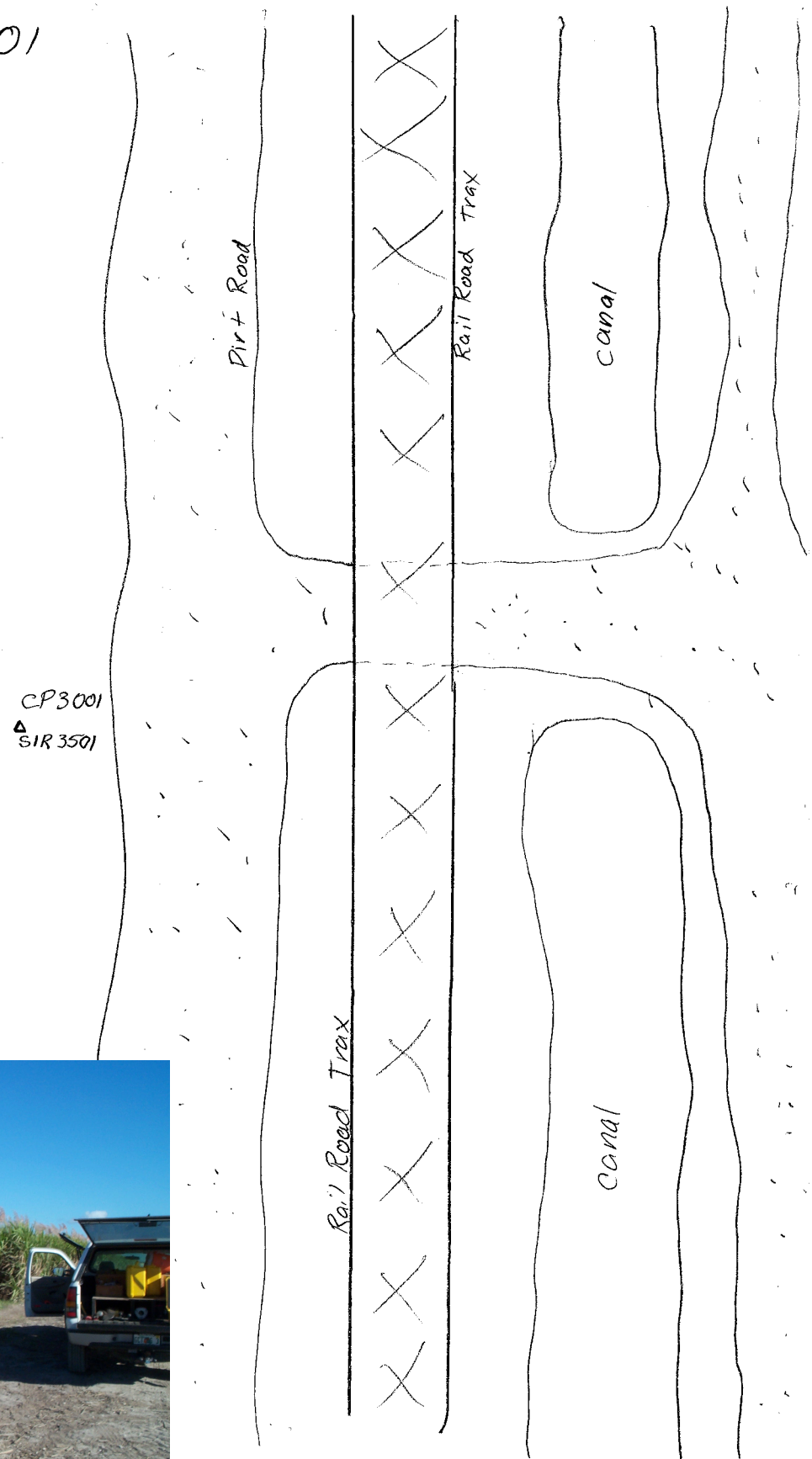
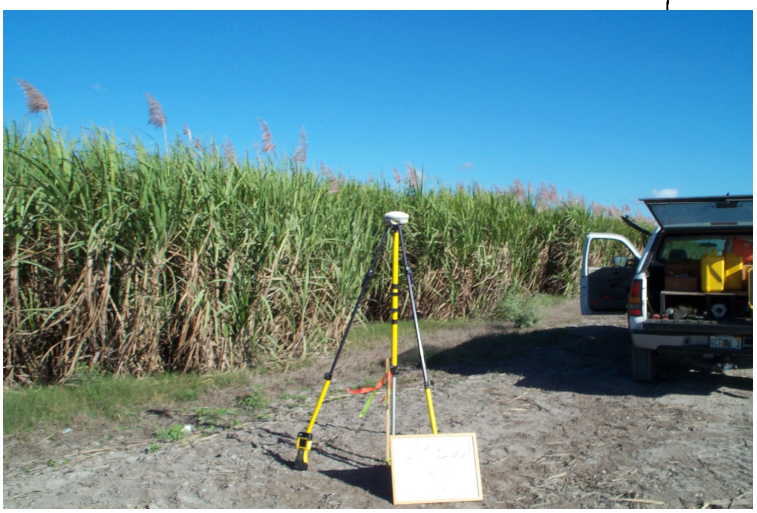
BY _____ JOB NO. _____

CP3001

N





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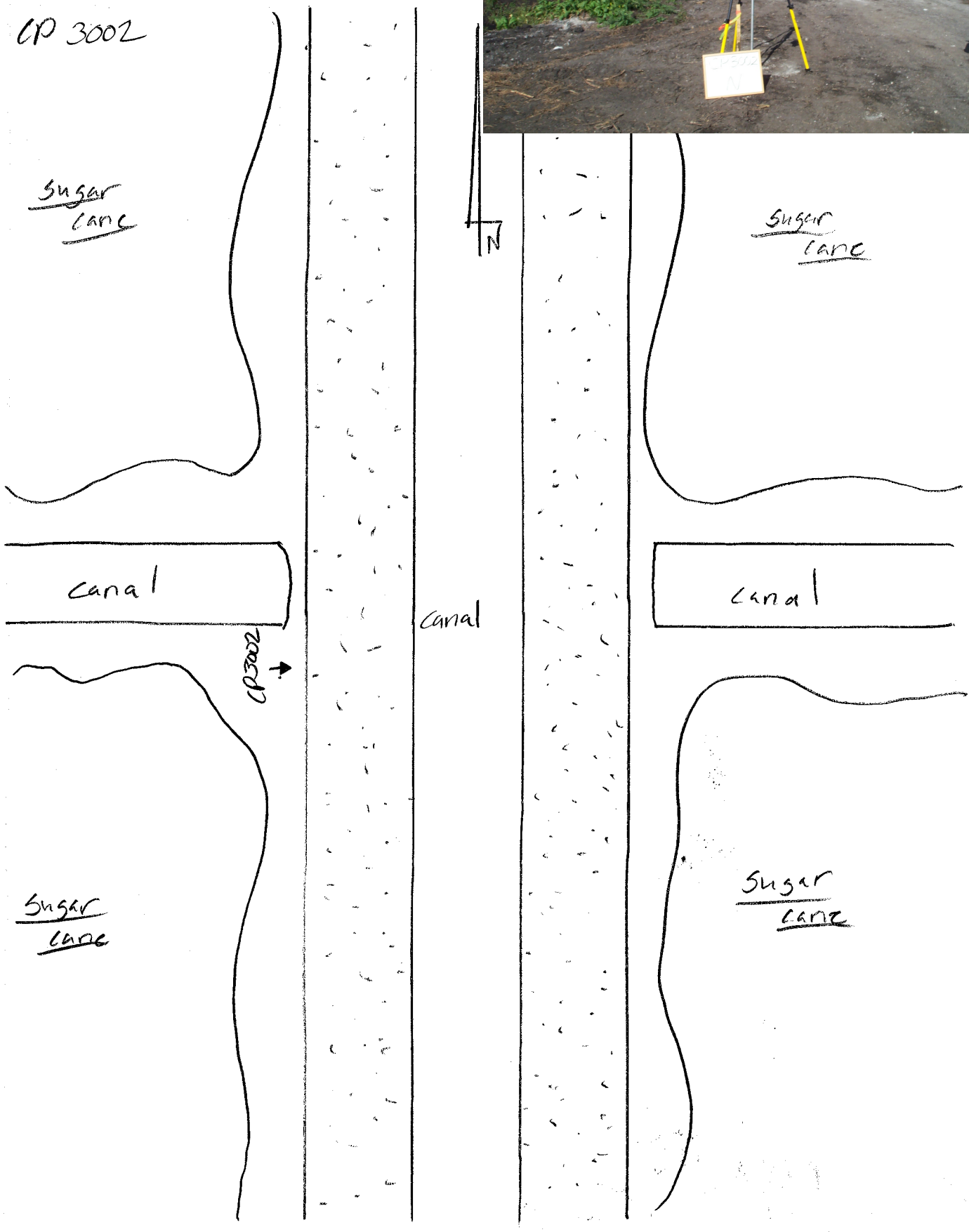

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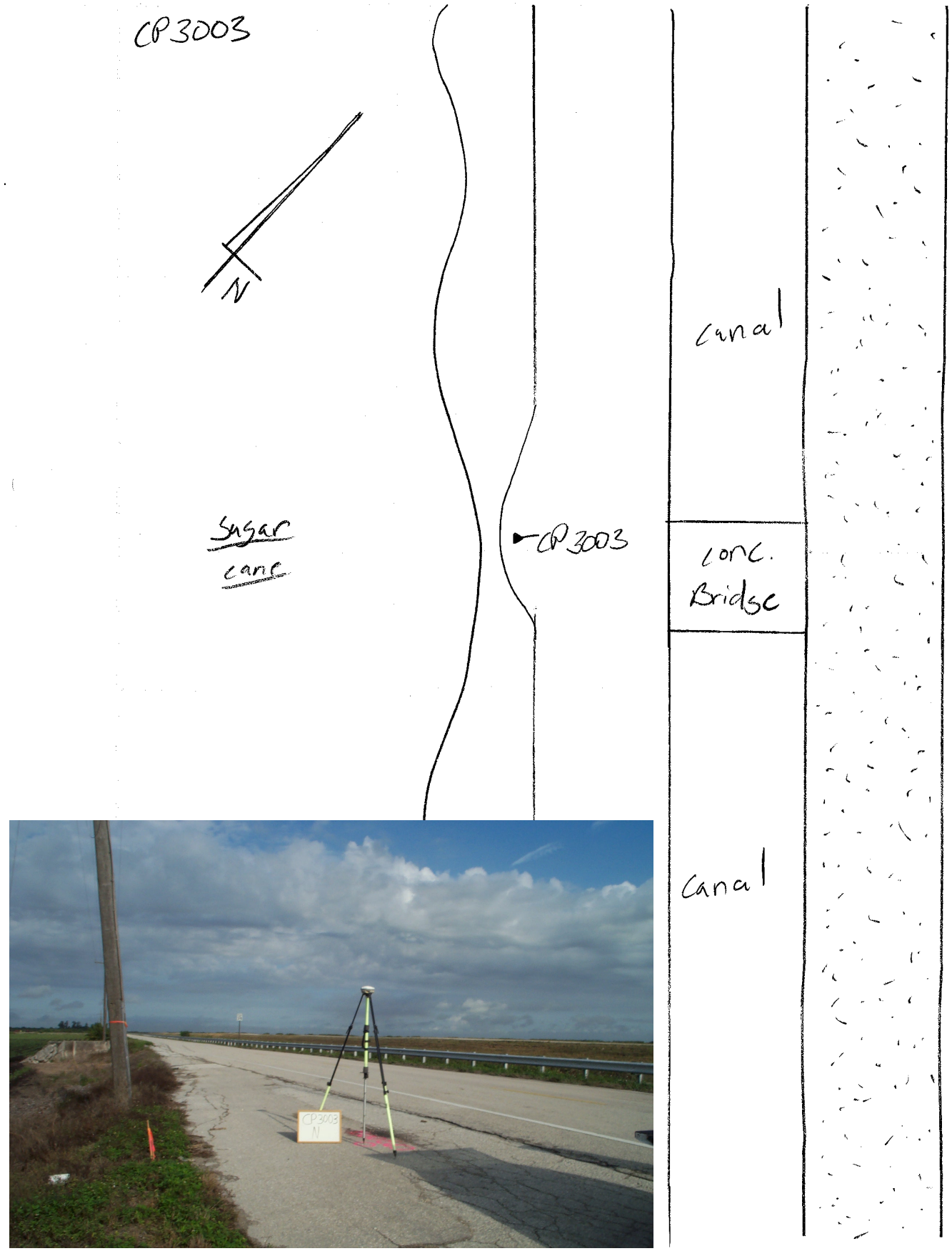

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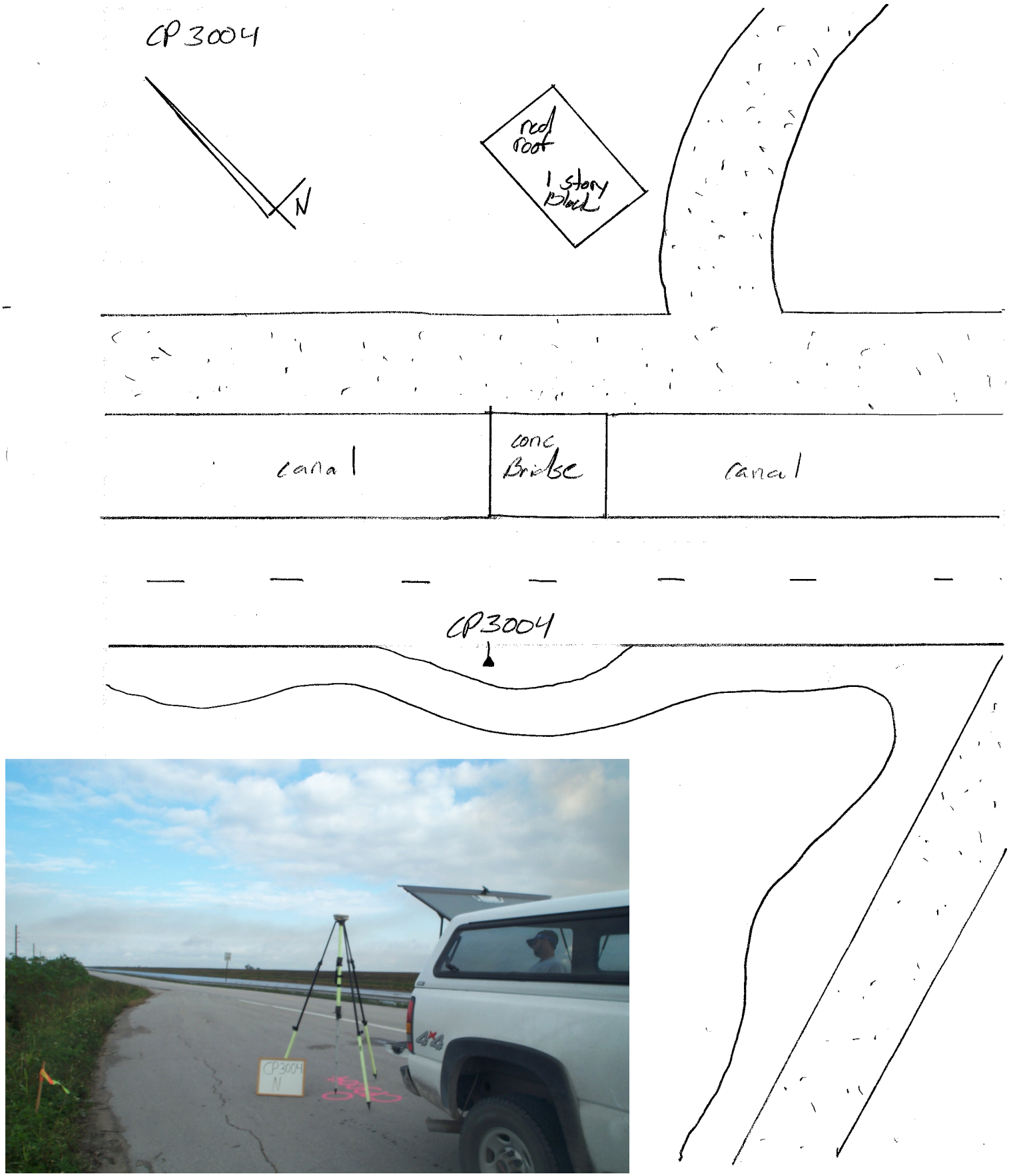

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CP3005

construction

CP3005

grass

canal

conc
bridge

grass

canal

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SUBJECT _____ DATE _____

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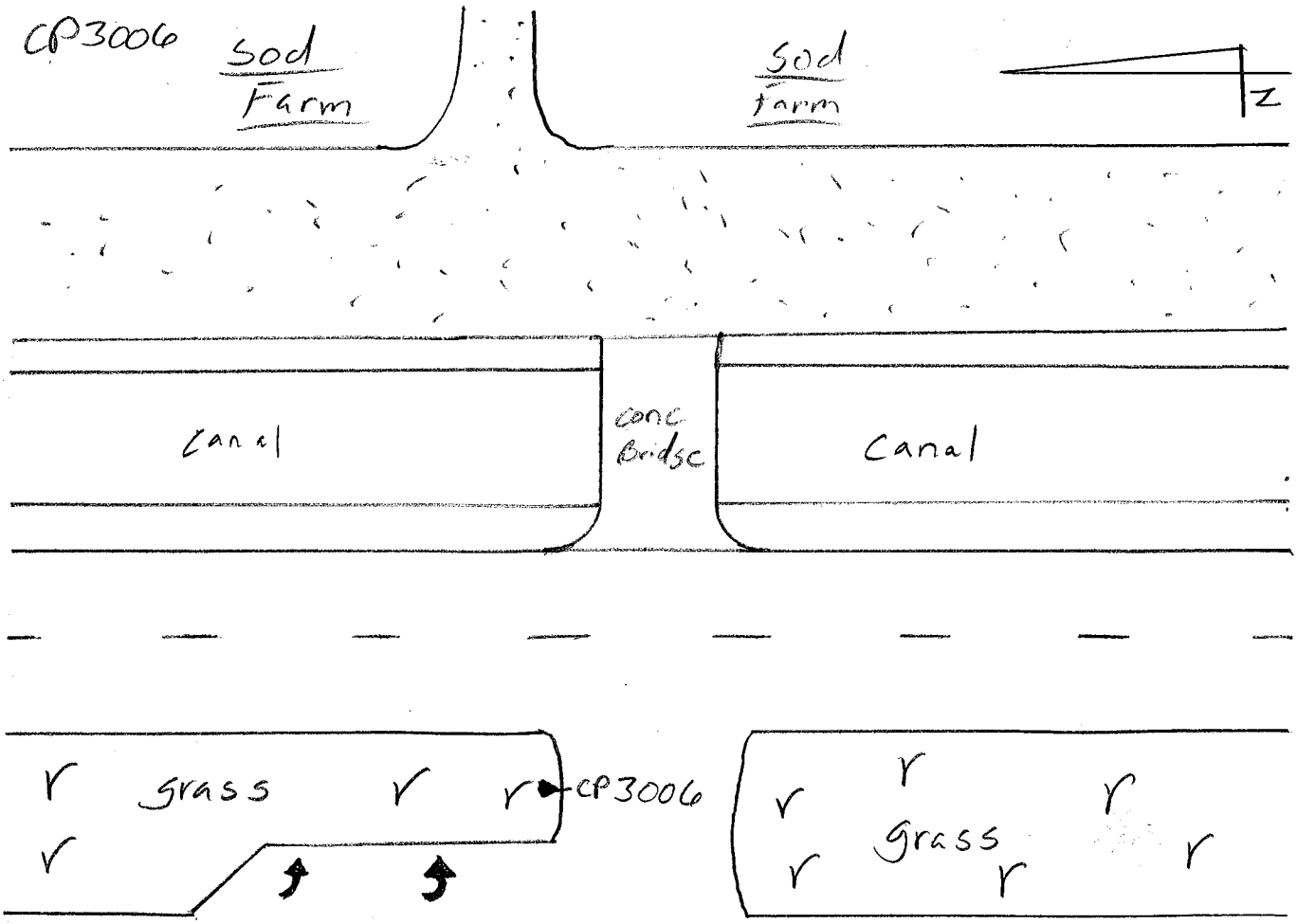



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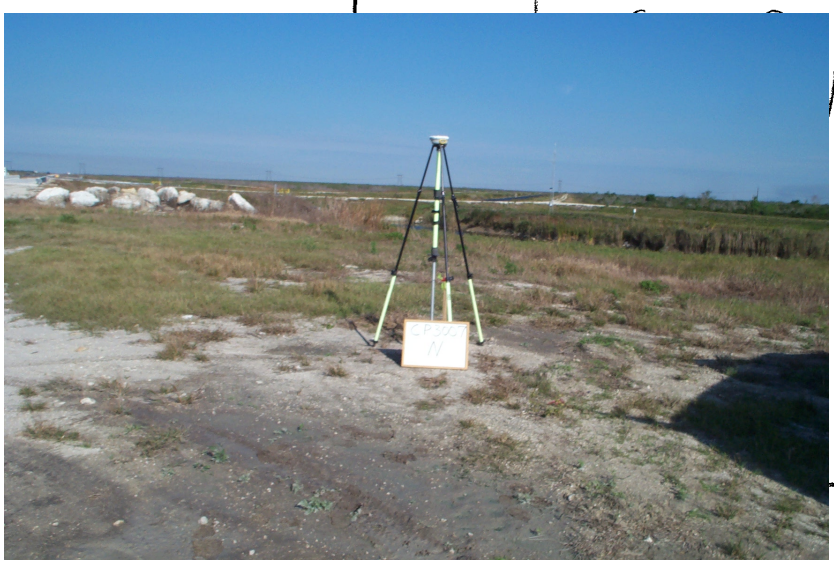

CP 3007
grass
canal
Canal
grass
grass
CP3007
grass
canal
Brush
Canal

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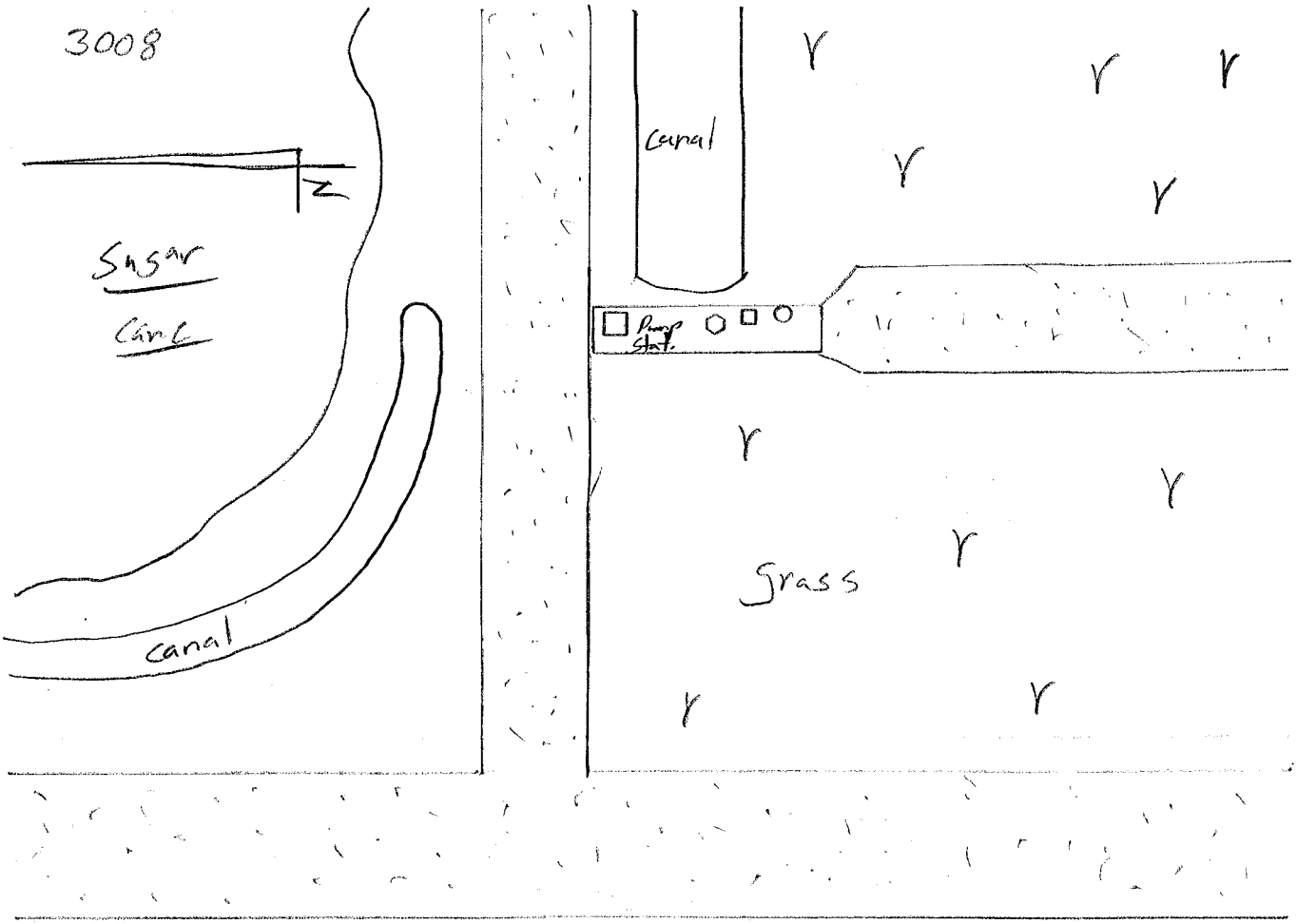

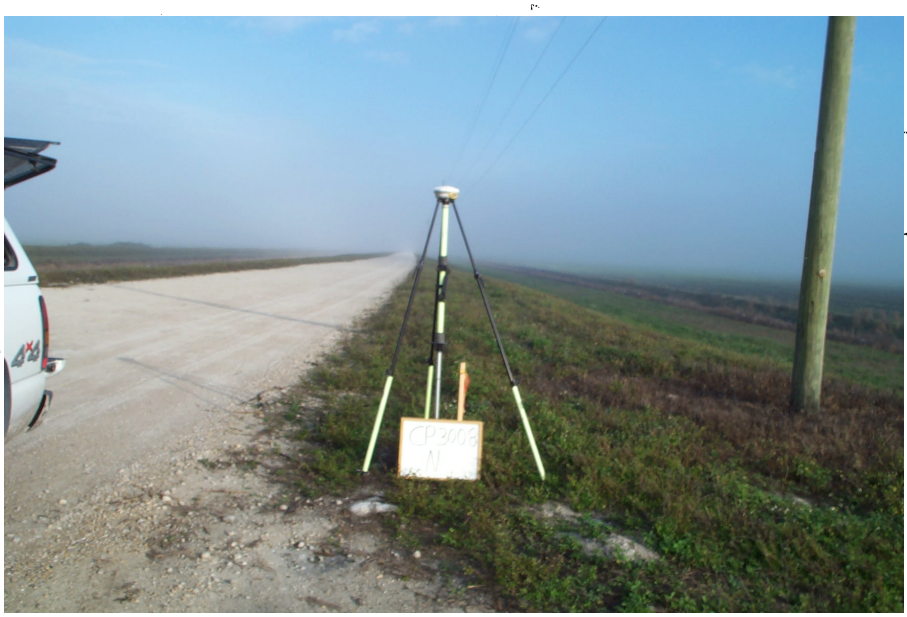

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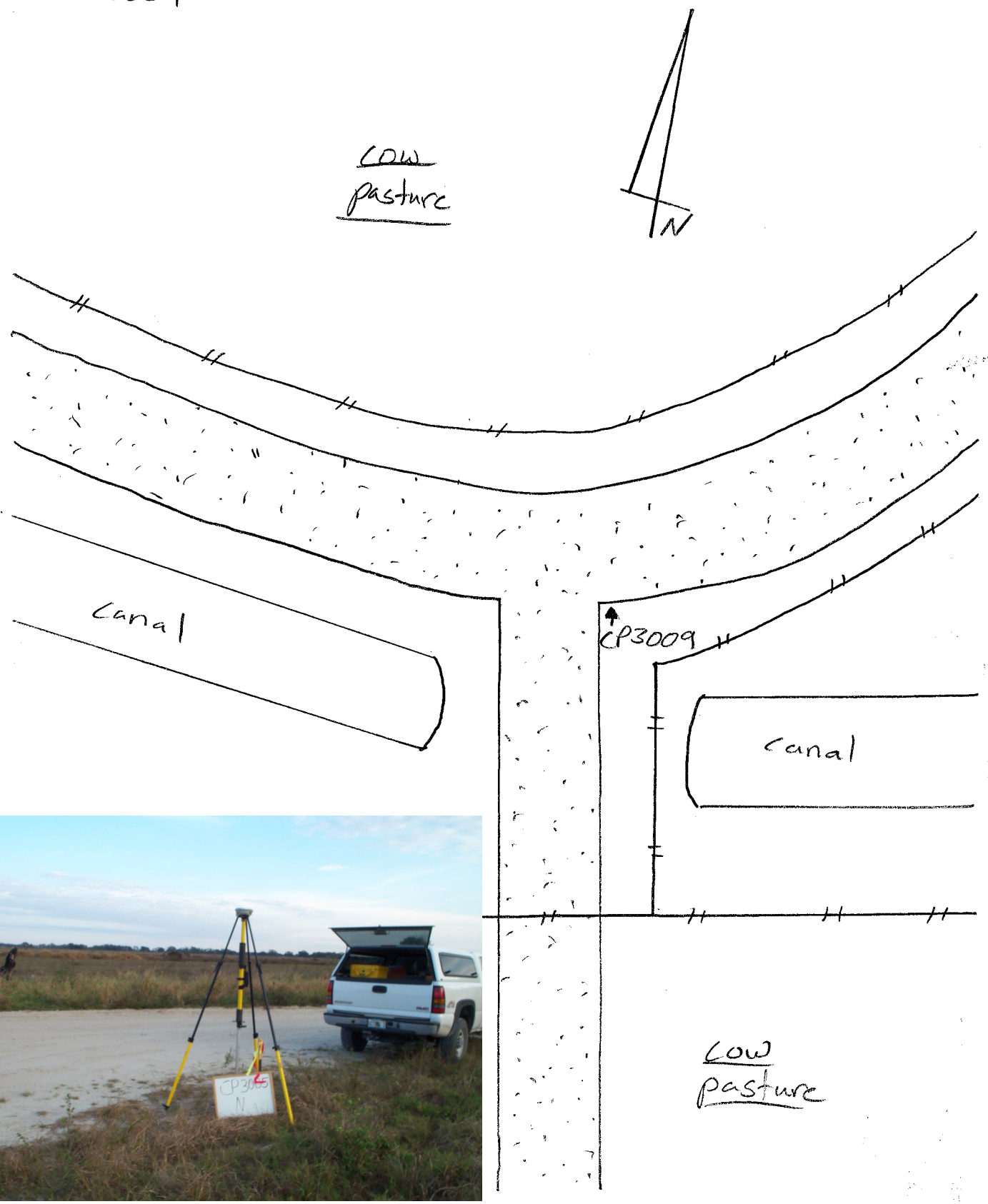
CP 3009



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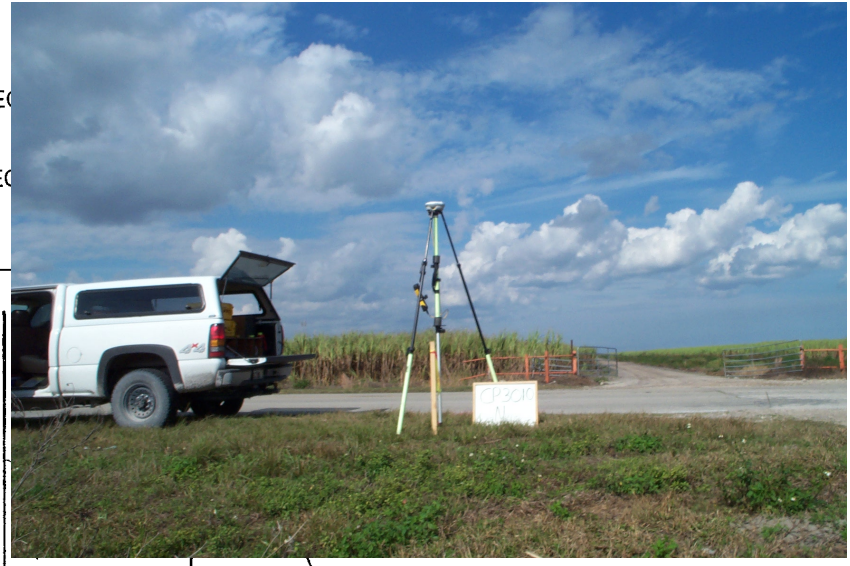

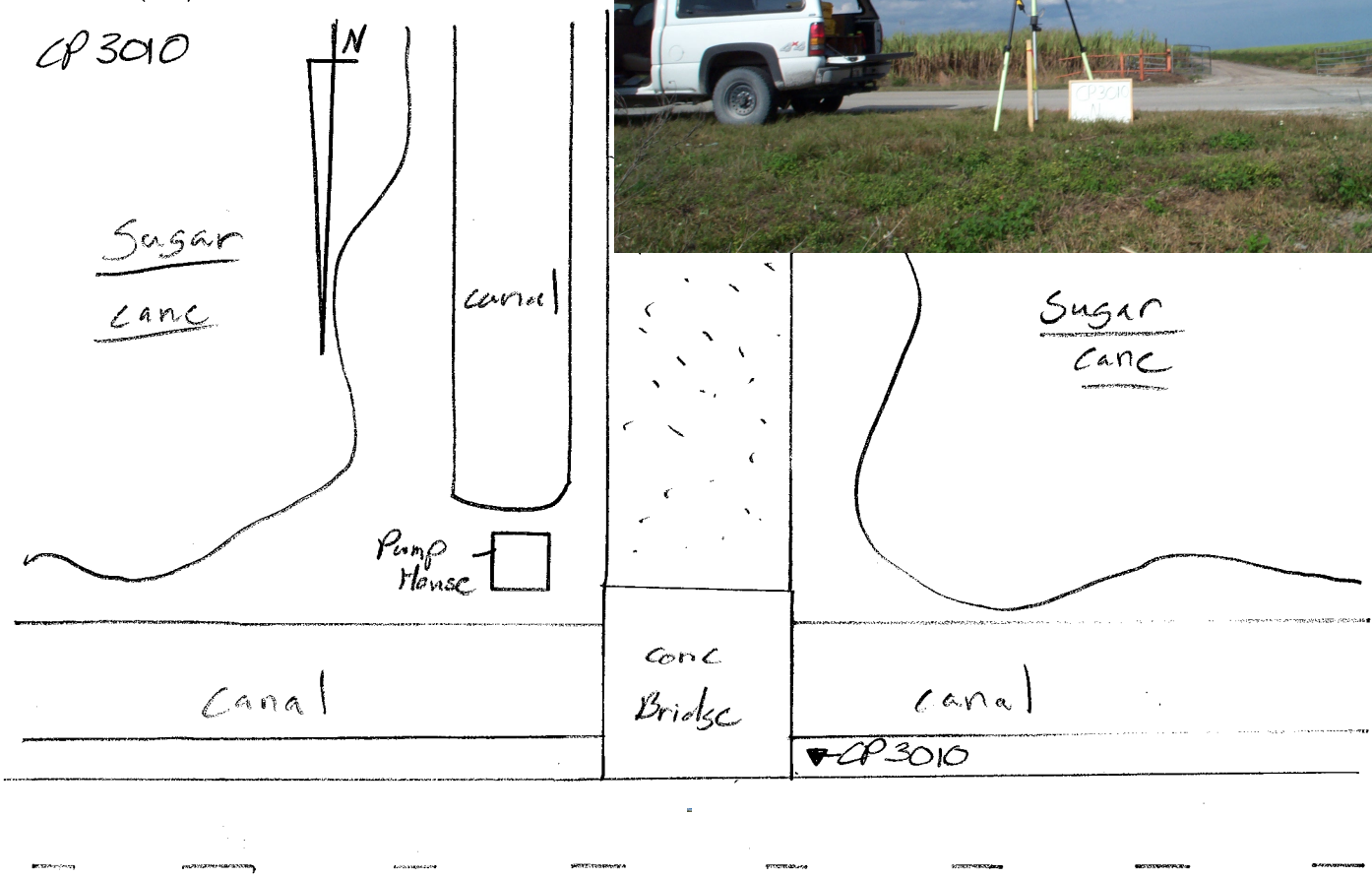

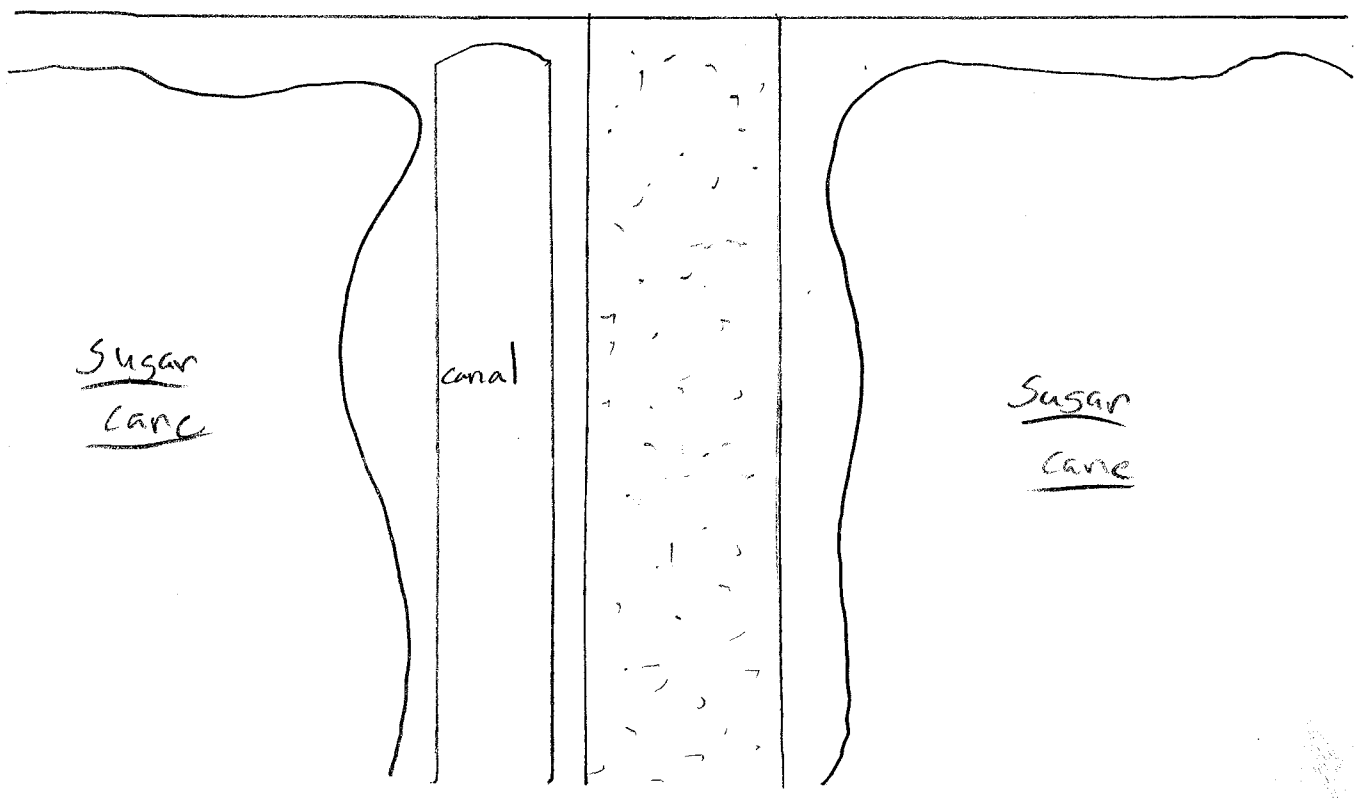

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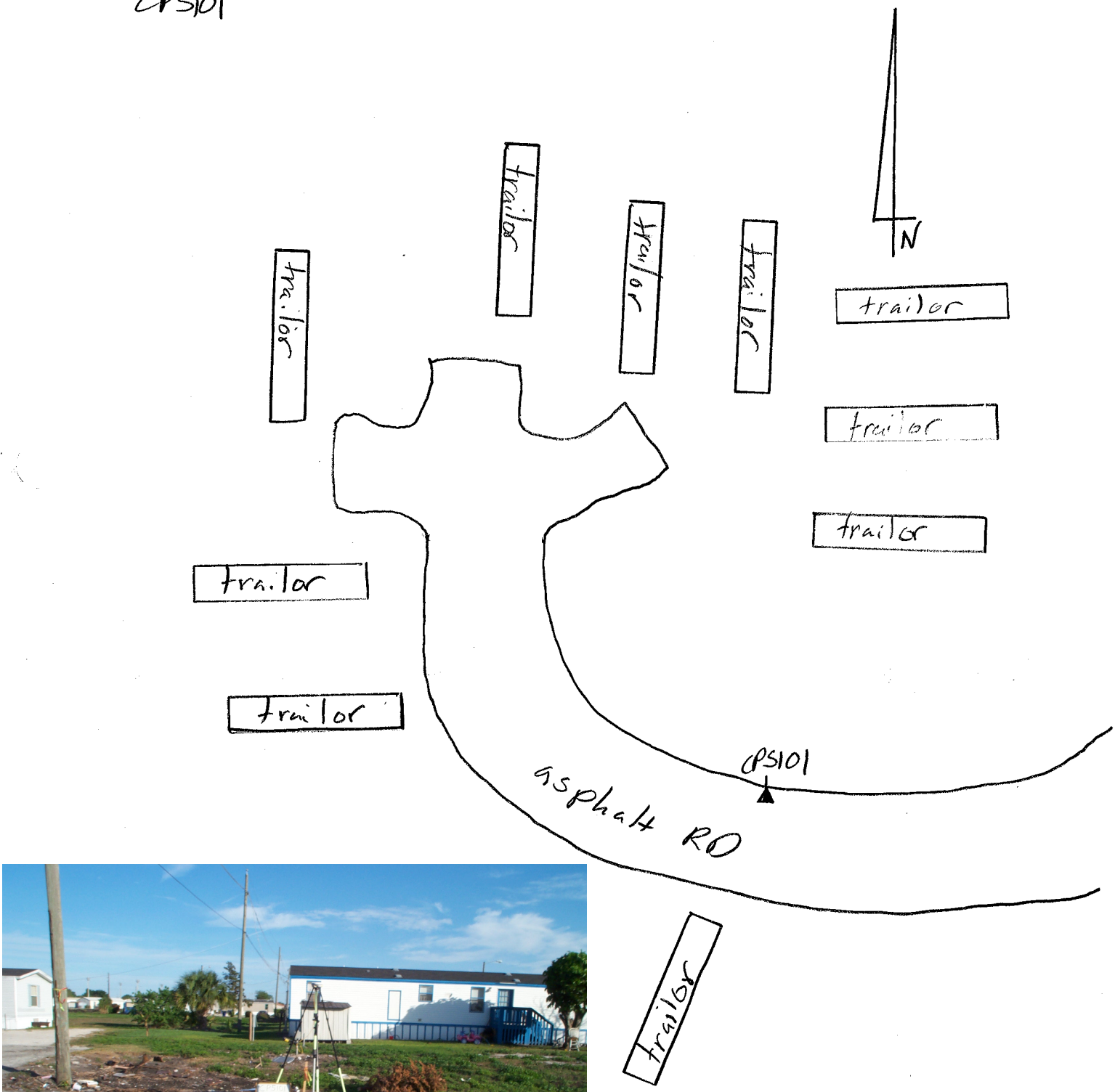
CPS101



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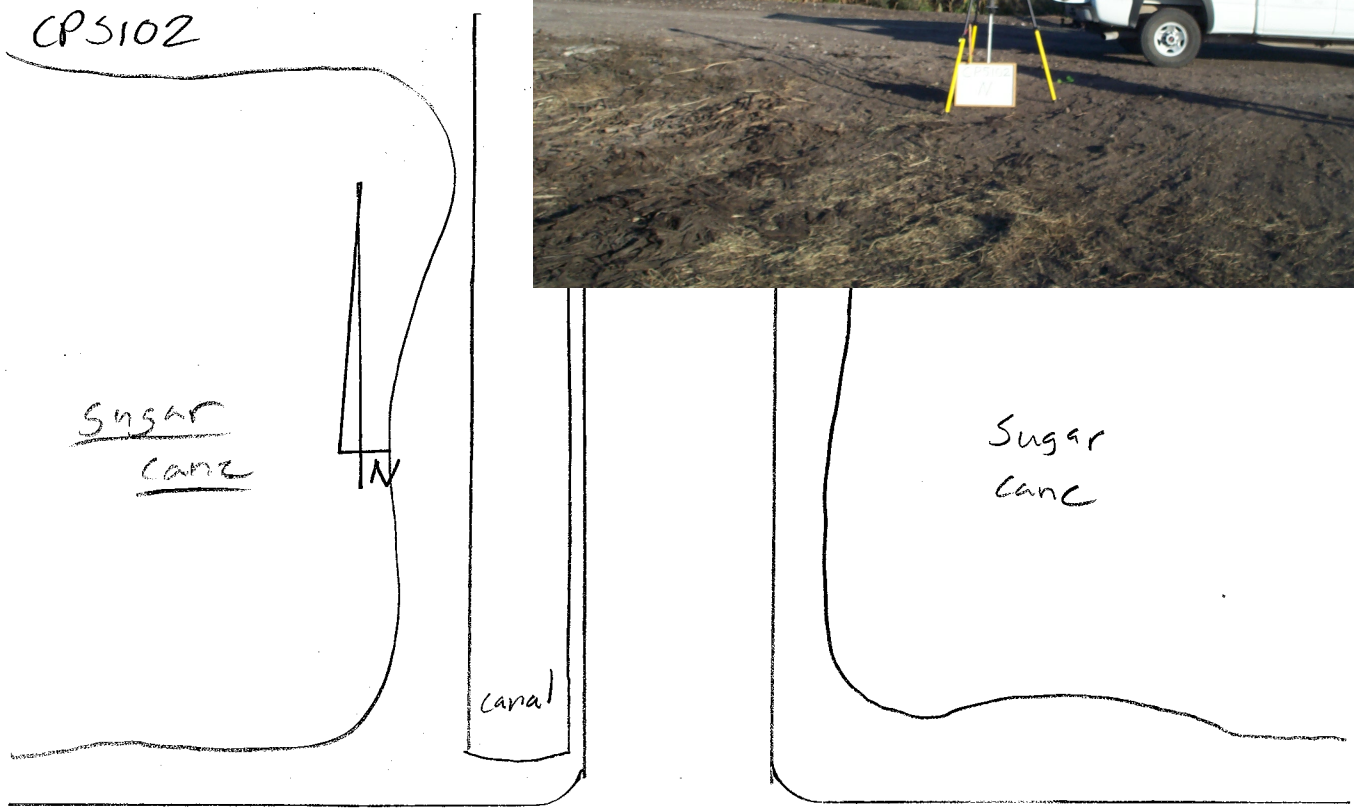
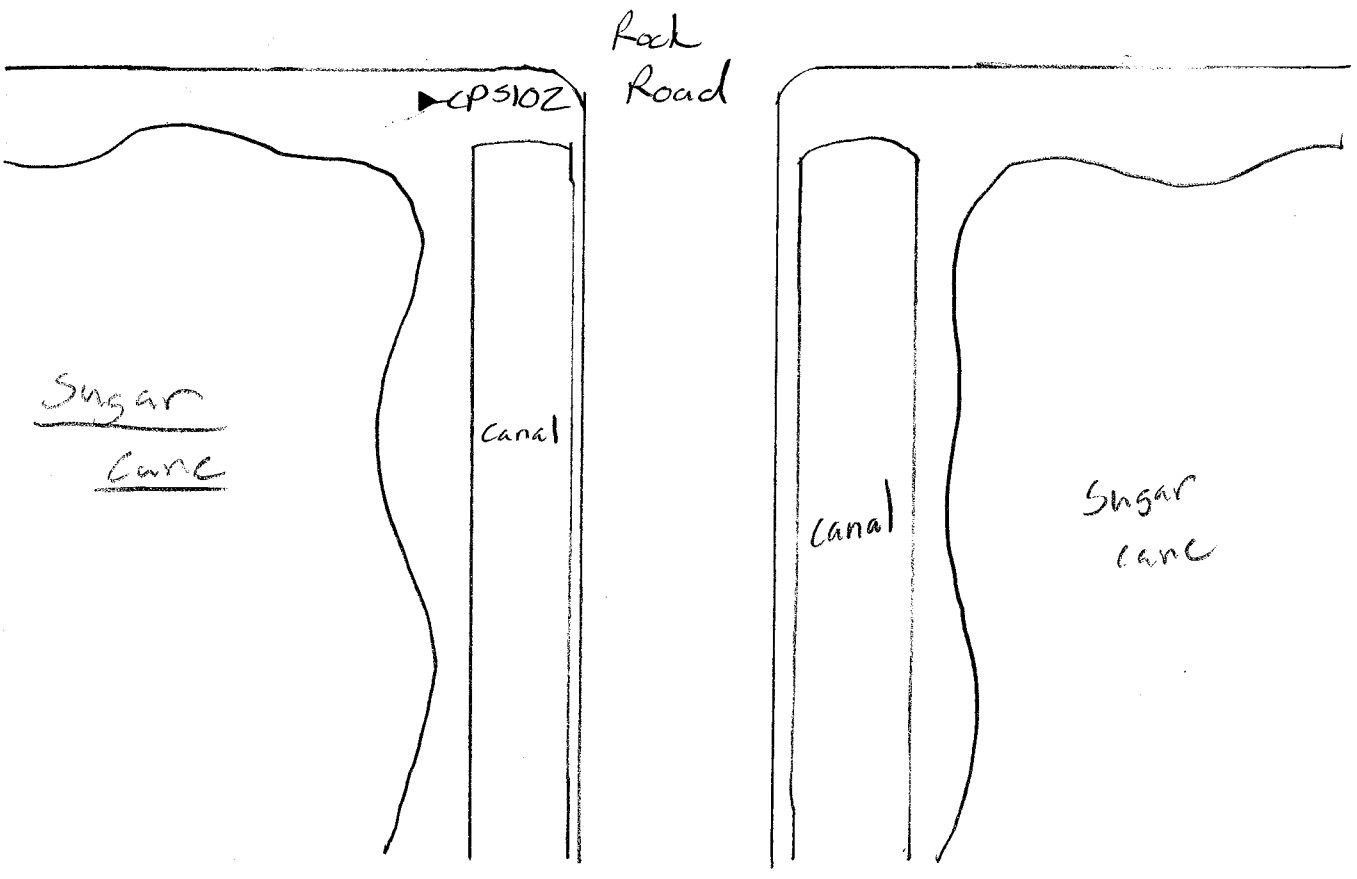
BY







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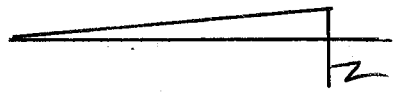
CP S103



canal

Picnic table

sidwalk

CPS103



Baseball Field

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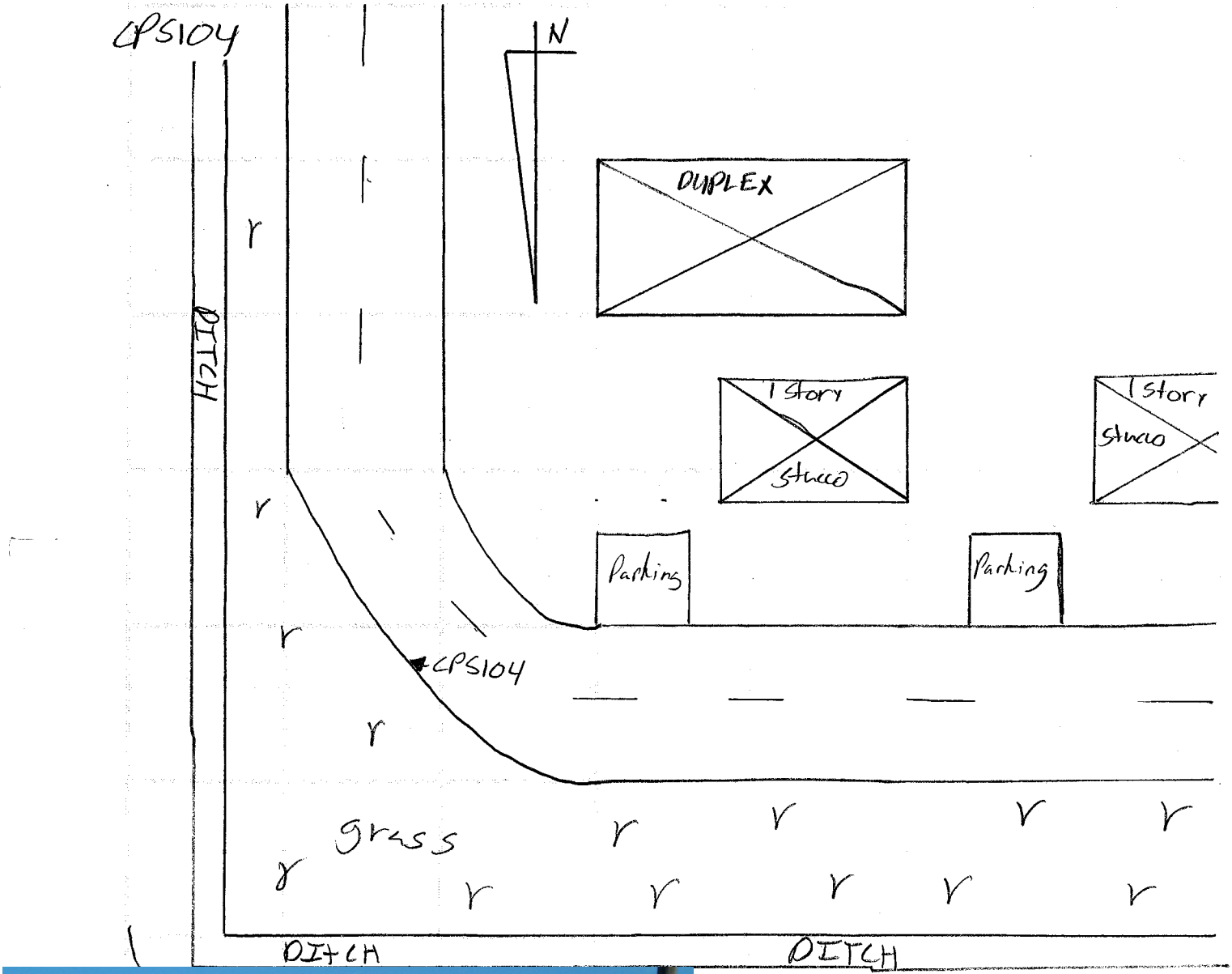

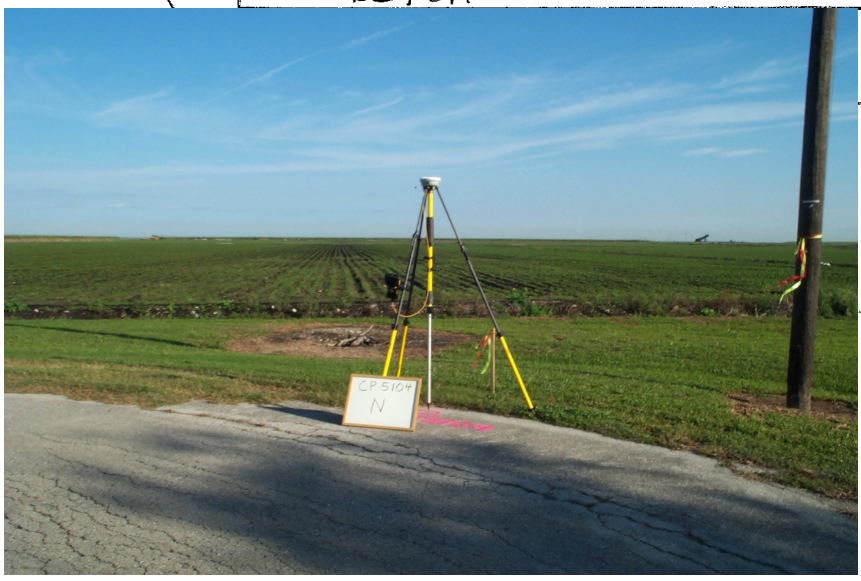

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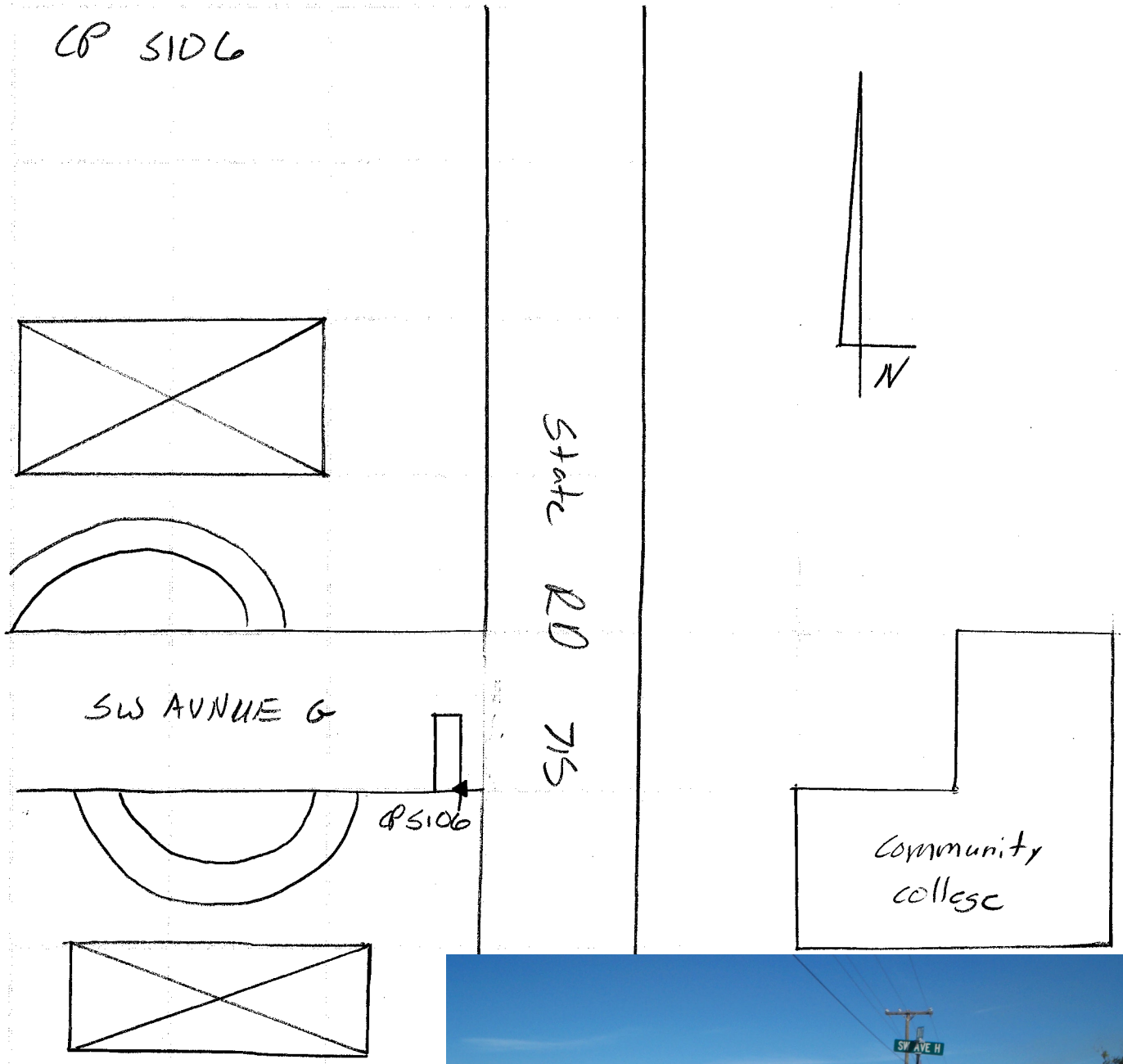



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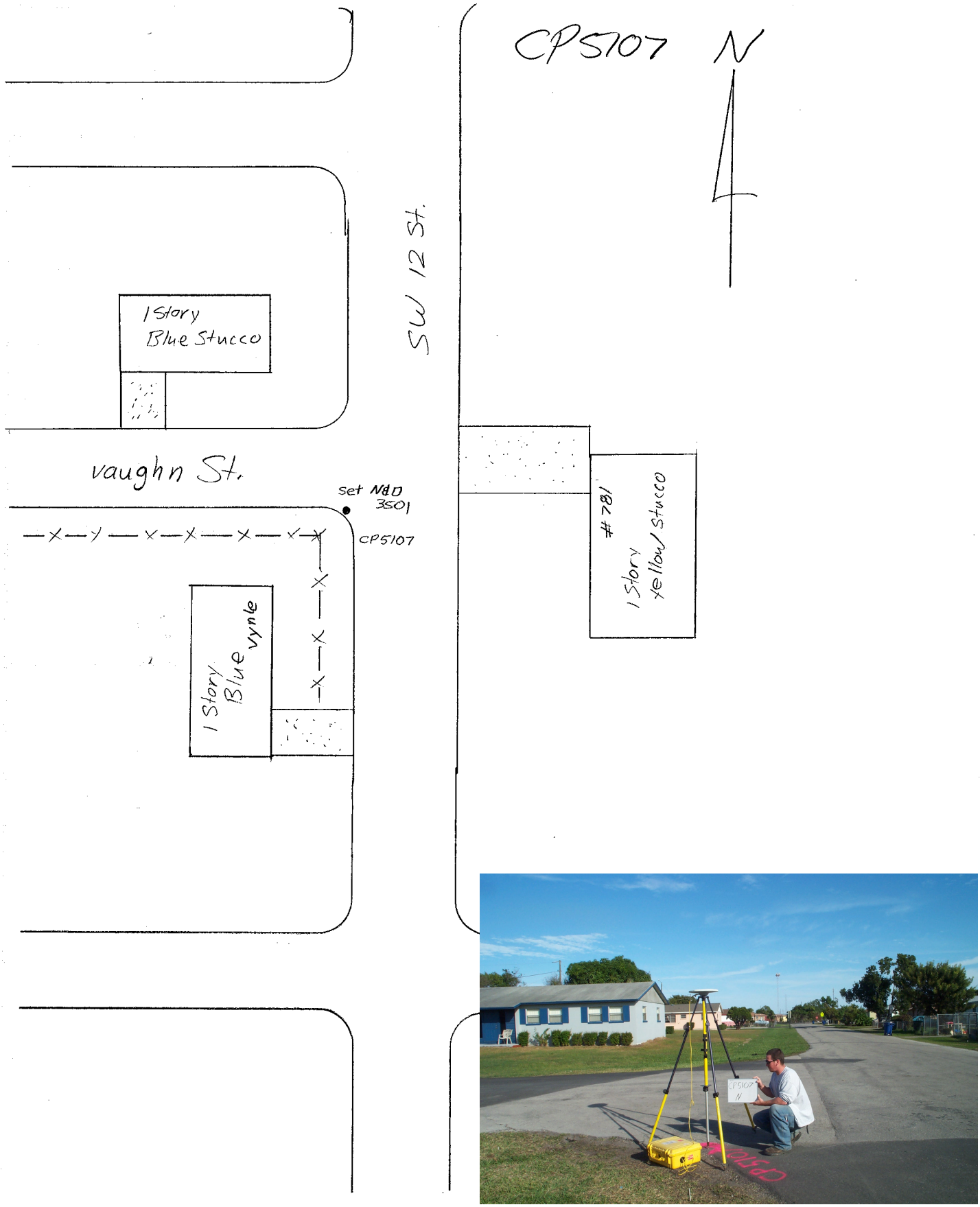

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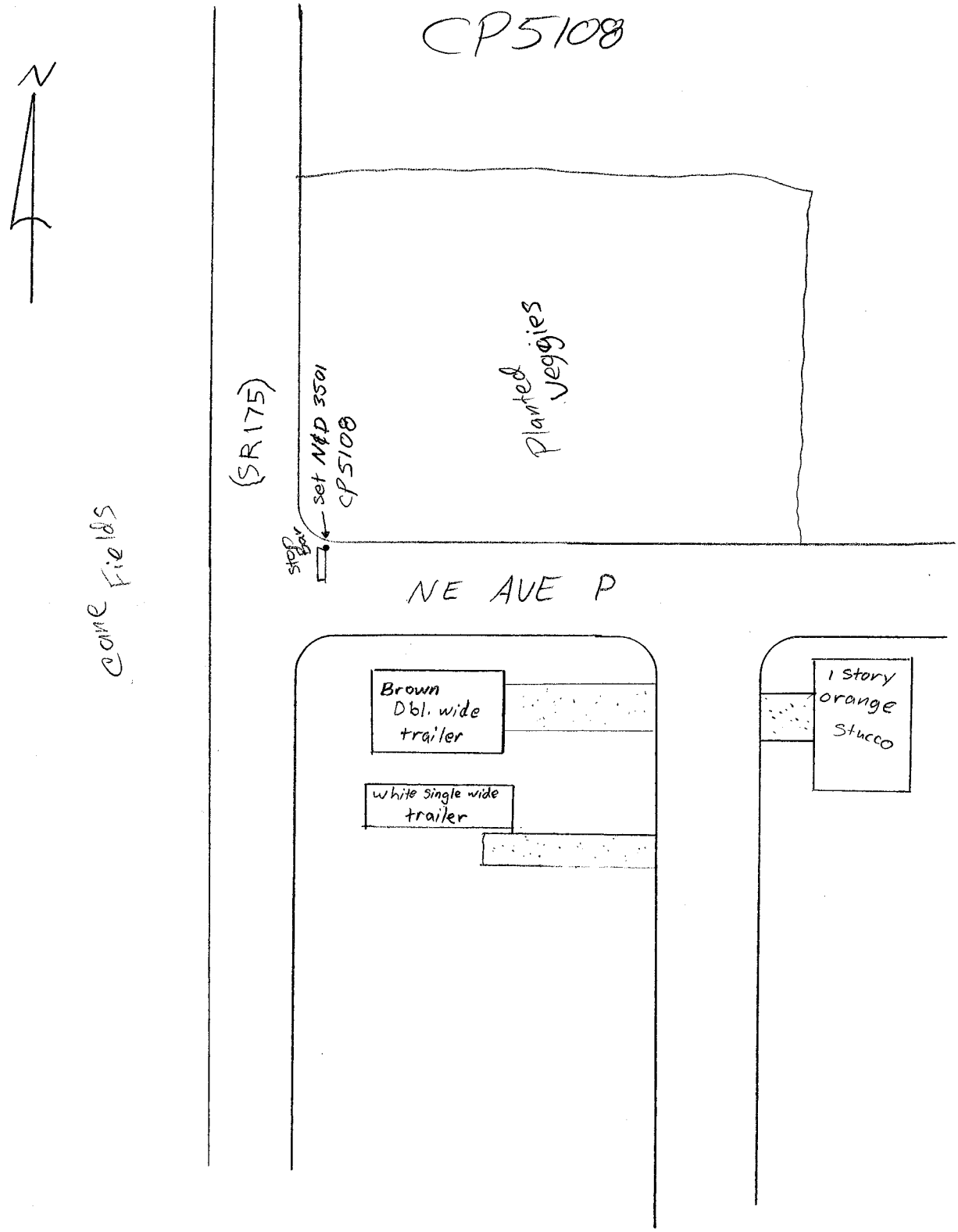

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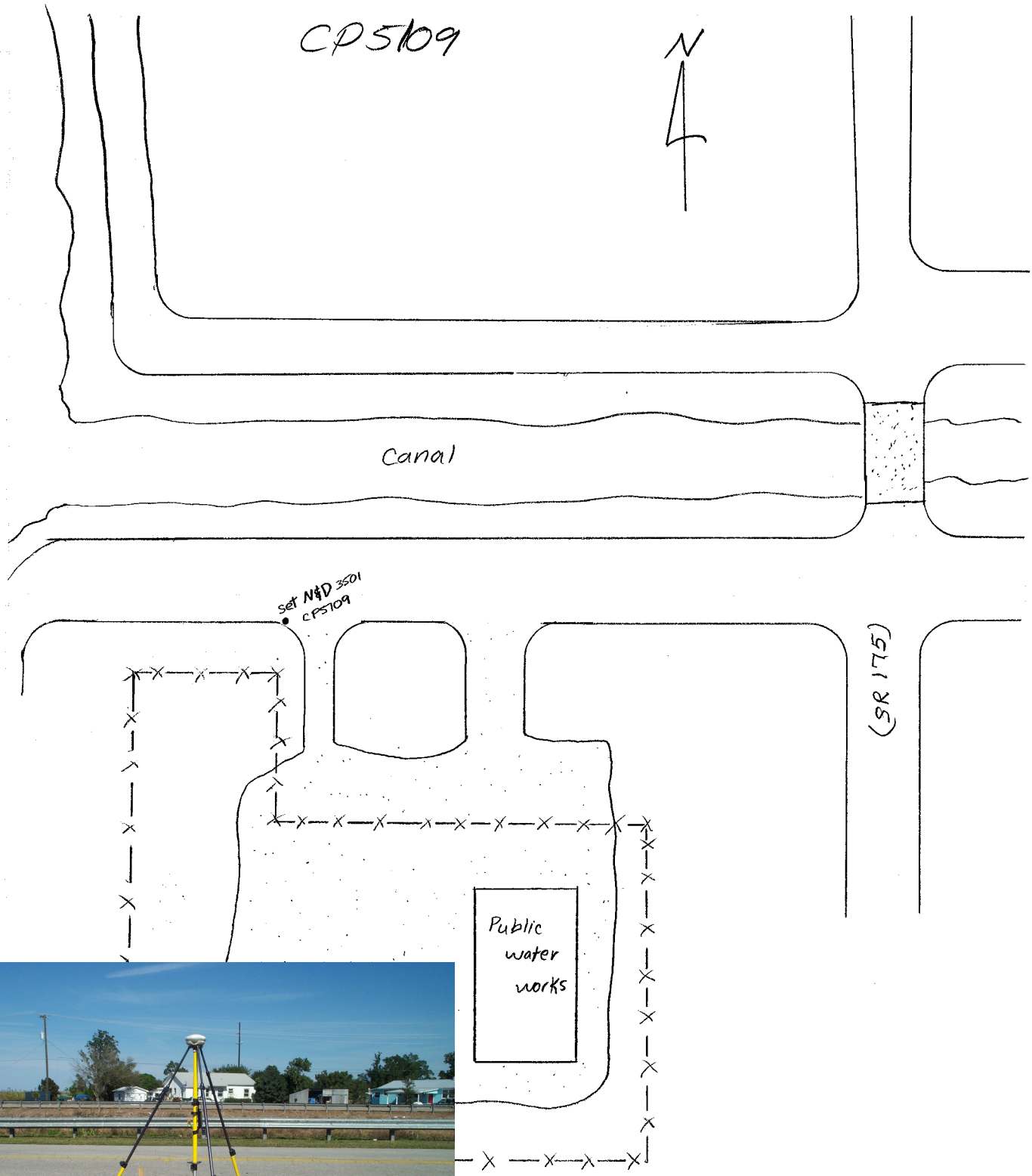



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PROJECT

SUBJECT

BY



CP 5110

N

Sugar cane

CP5110

Canal

SW AVENUE J

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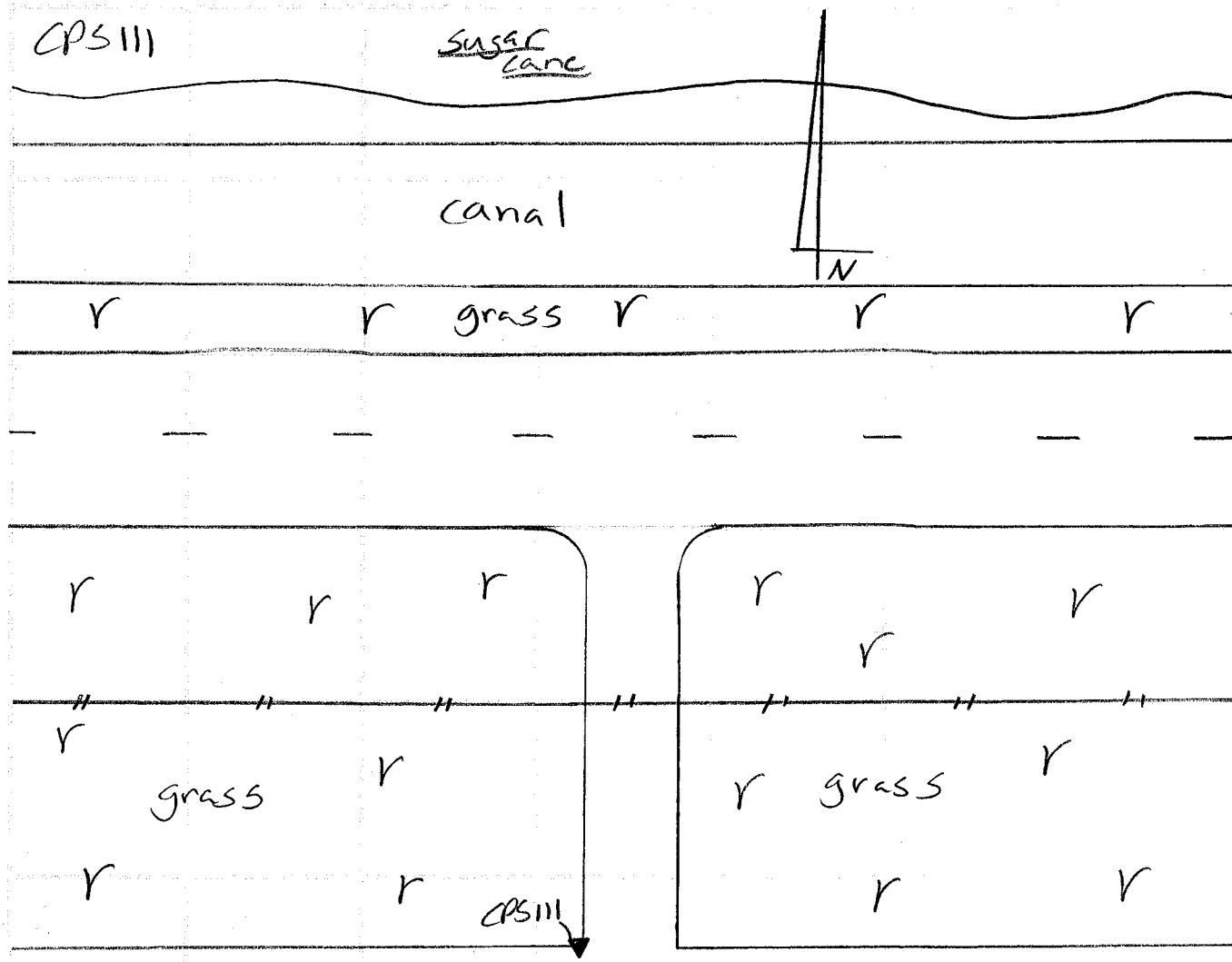

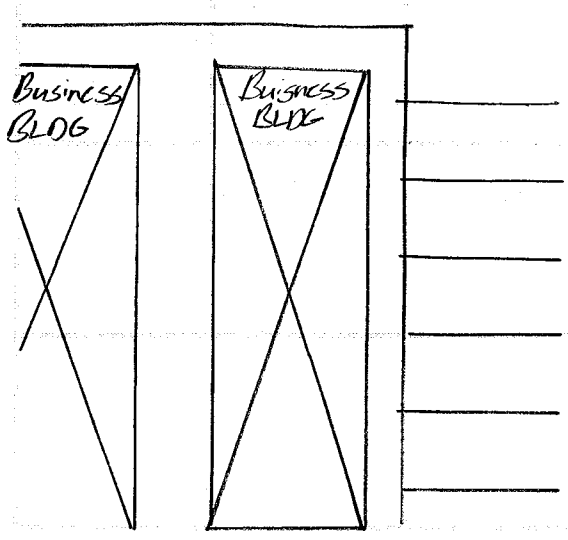



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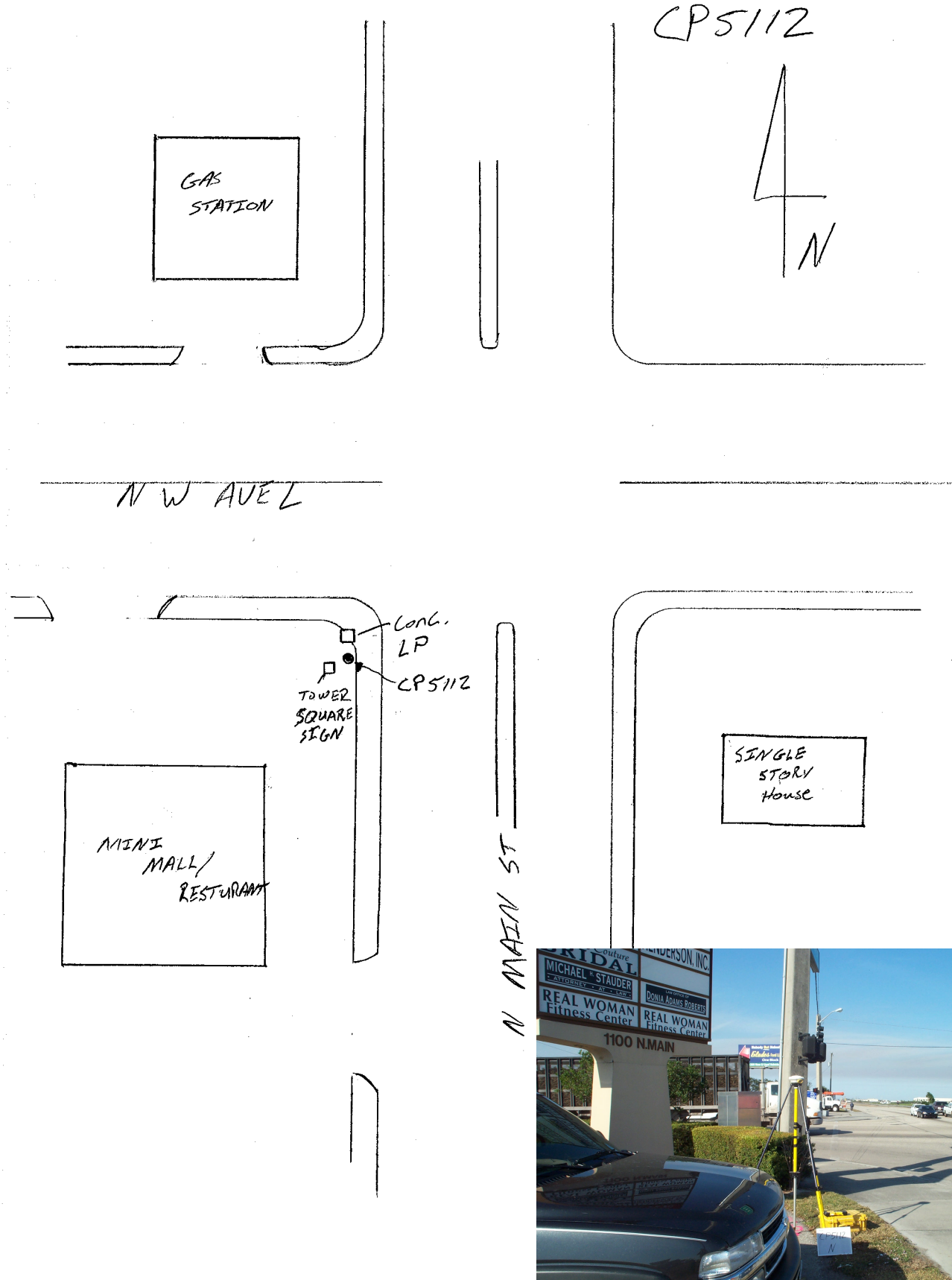

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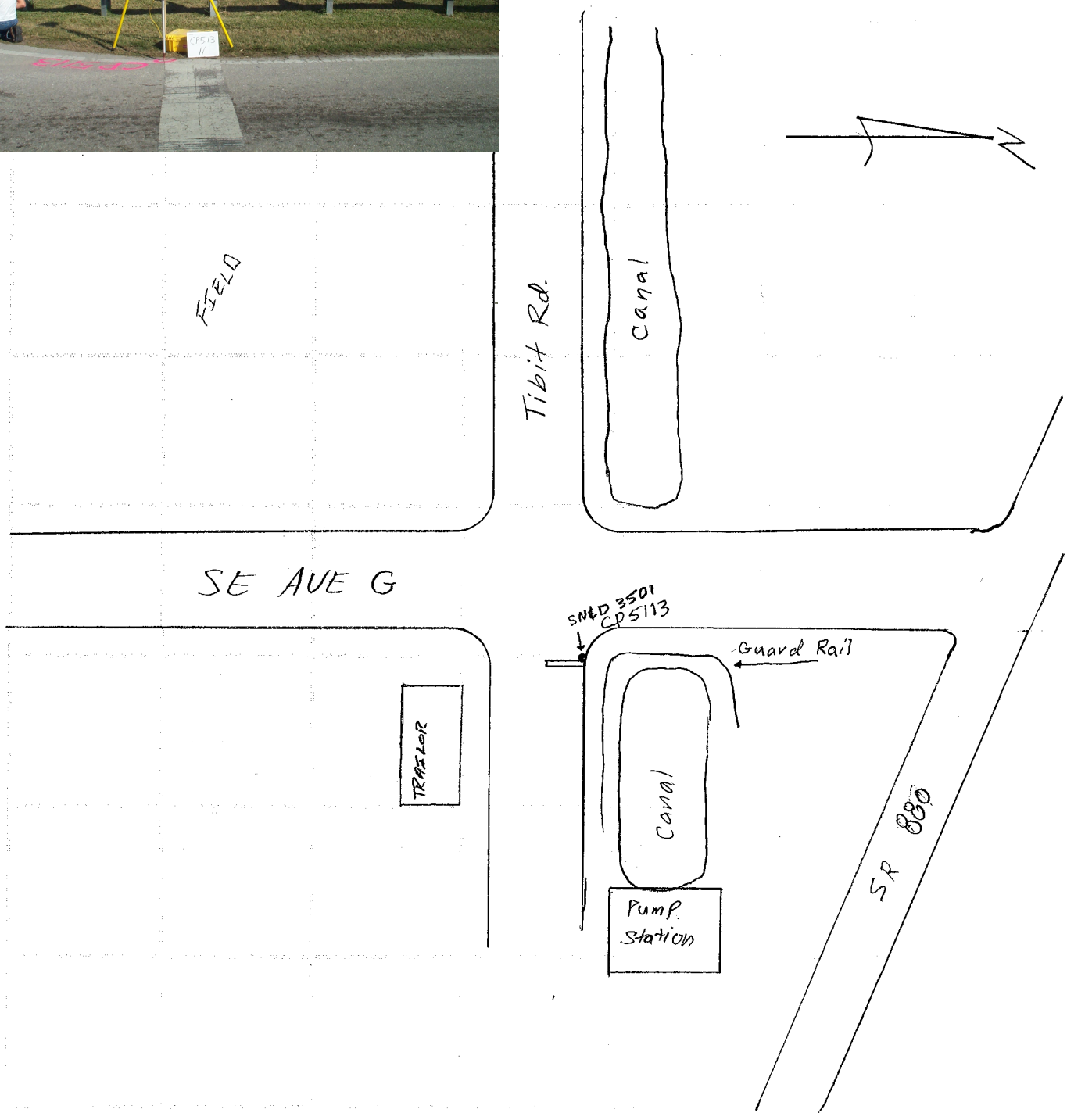
CP-5113



10:17

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CP5114A

RXR CROSSING

CELLULAR TOWER

CONC. LP

SND3501

M L KING JR. BLVD

GAS STATION

N

SR 175



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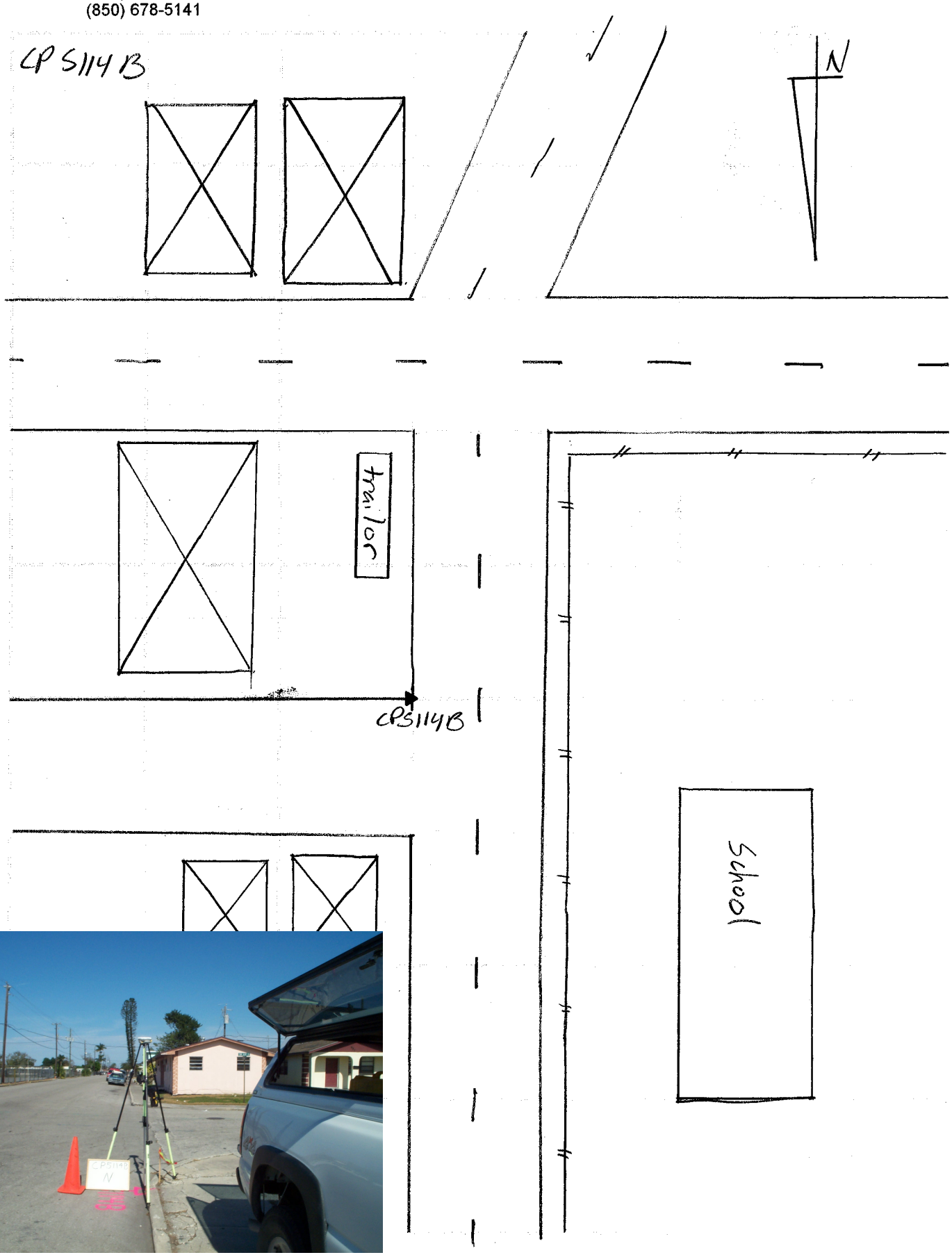

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BY _____ JOB NO. _____

CP5115

N

1 Story Brick
Conv. Store

1 Story
White Frame
Dixie
Fried Chicken

Dr Martin Luther King Jr. Blvd

Set
NAD 3501
CP5115

1 Story
Block
Bldg.
(Flowers
By
Gwen)

SW 2nd St.



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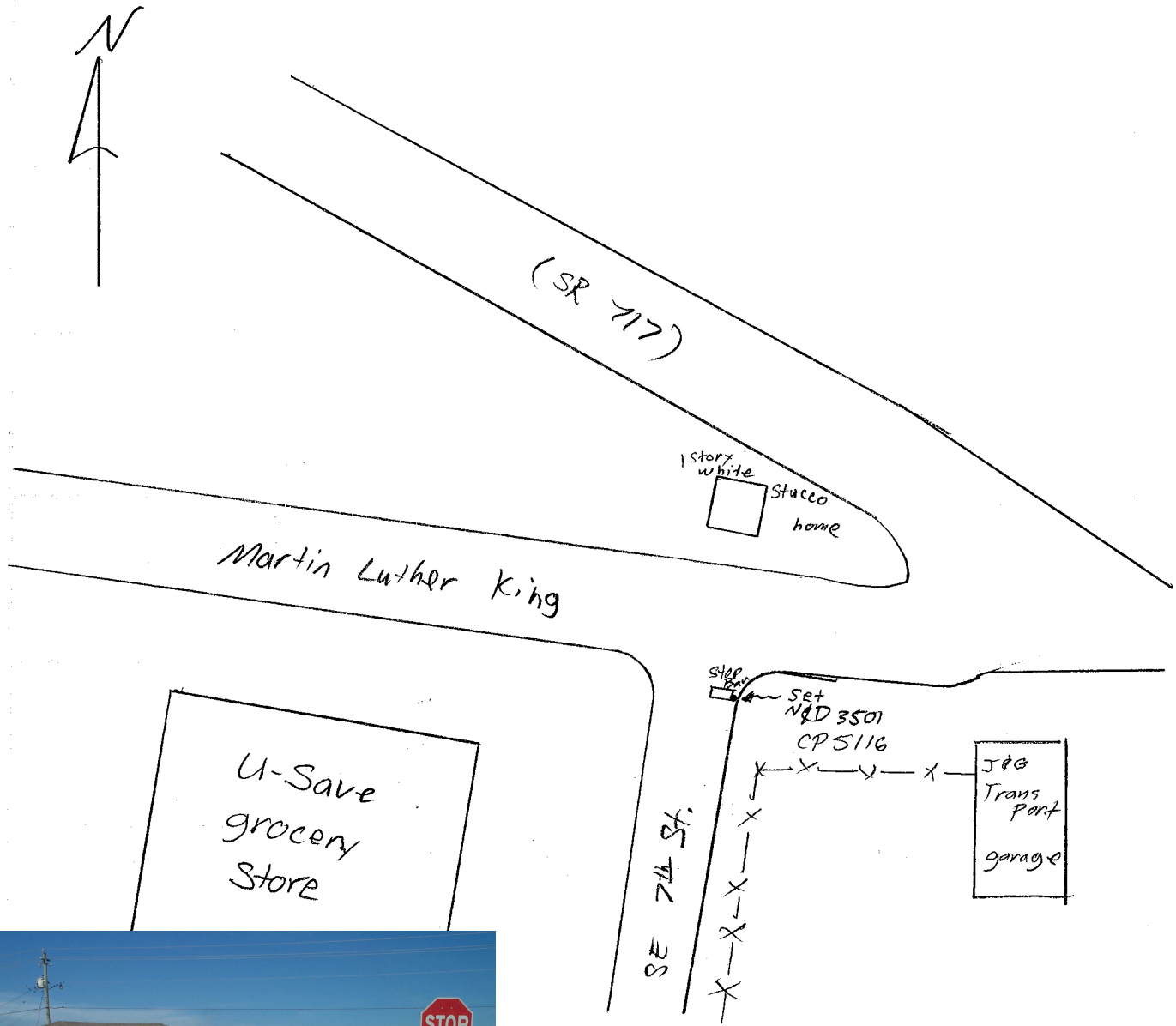
BY _____ JOB NO. _____

CP 5116





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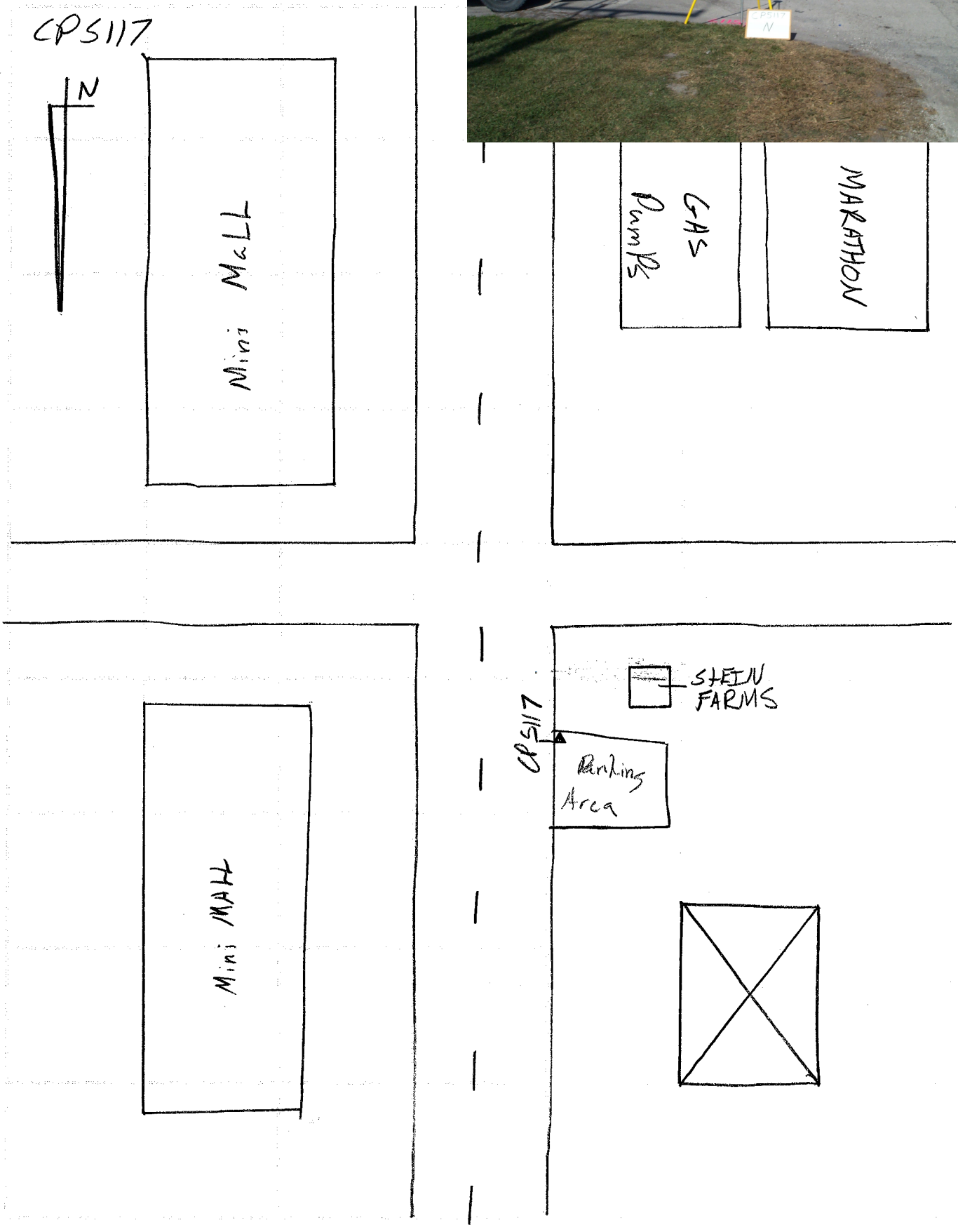
PROJECT

SUBJECT

BY





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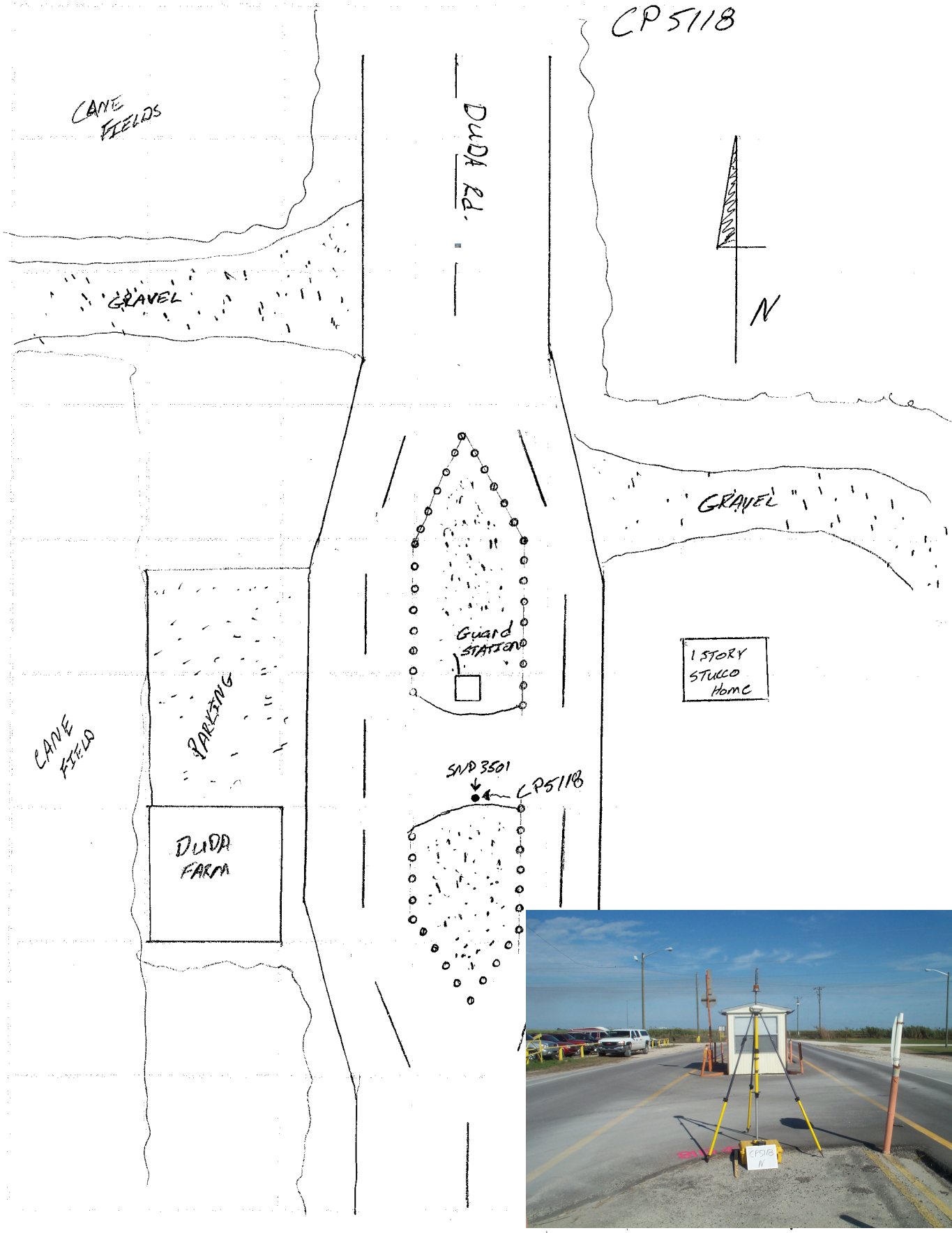

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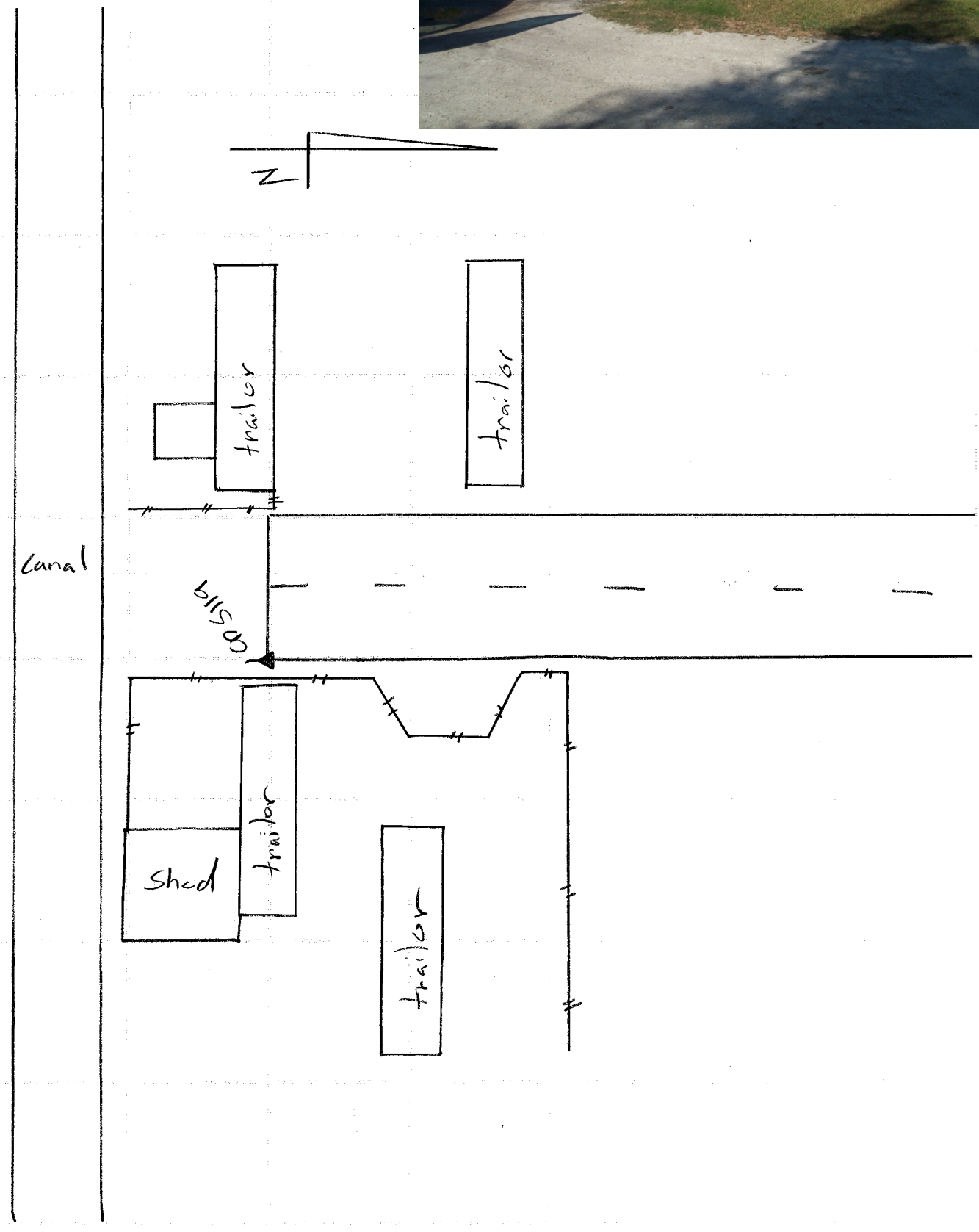
PROJE

SUBJE

BY



CP 5119



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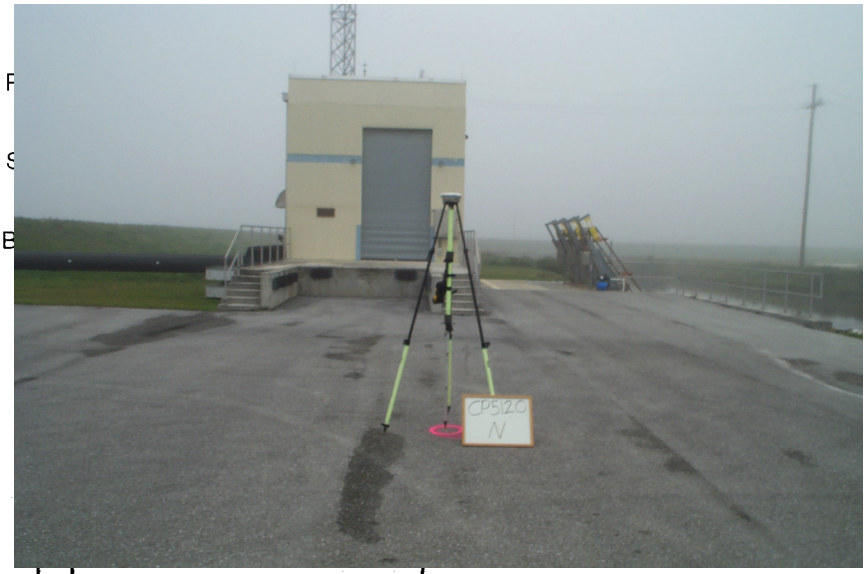
F

S

B



CPS120

N

canal

conc Pad

grass

asphualt Parking

conc Pad

grass

CPS120

canal

Pump stat.

Black Pipe's

GUSTIN, COTHERN & TUCKER, INC.

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PROJECT

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CPS121

N

Office complex

Super 8 MOTEL

Parking

CPS121

Parking

Parking

Bank of AMERICA

TARMAC

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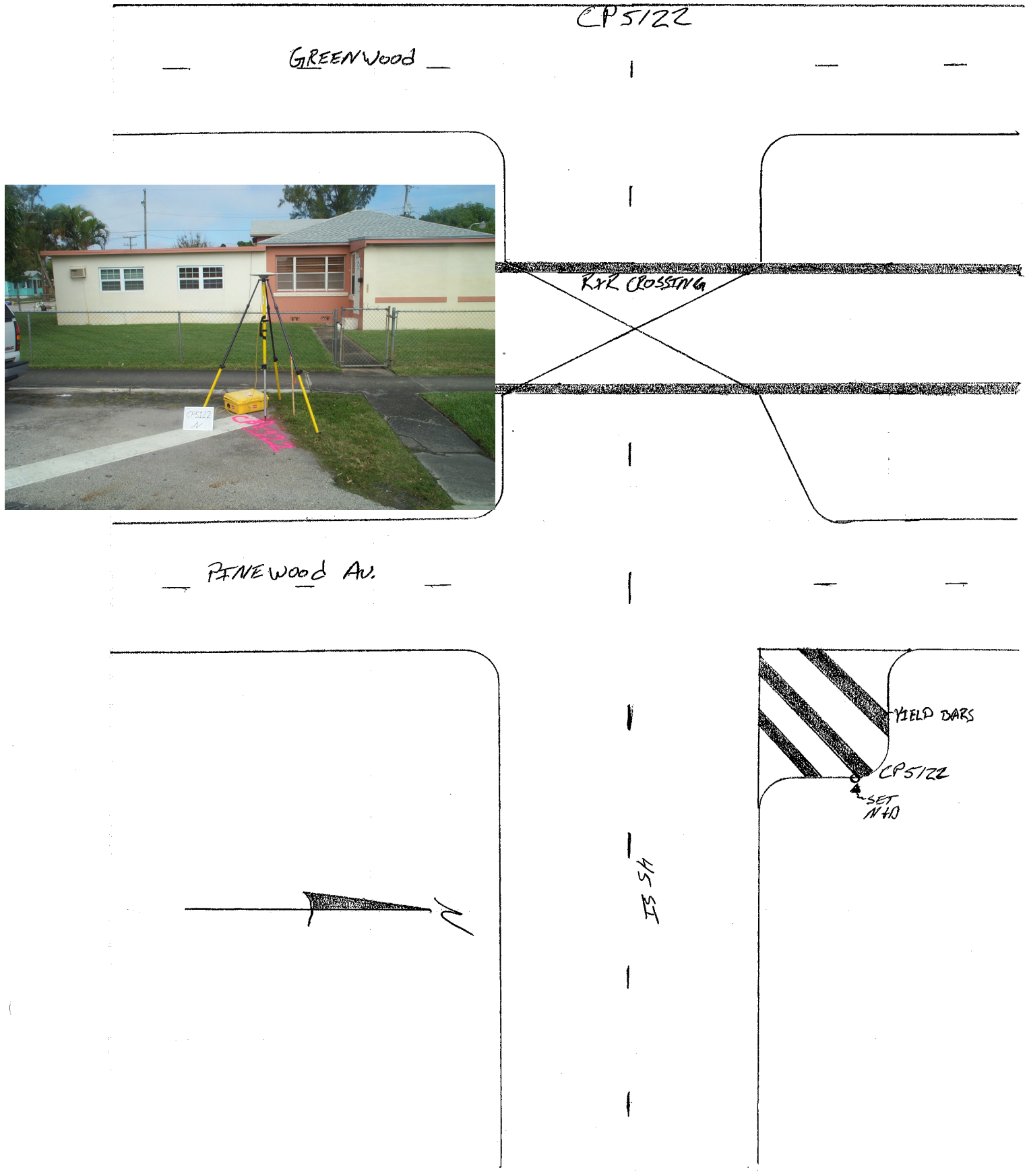

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PRO
SUB
BY



CP5123

N

train station

Soccer FIELD

CP5123

4 Story

VallEY Parking

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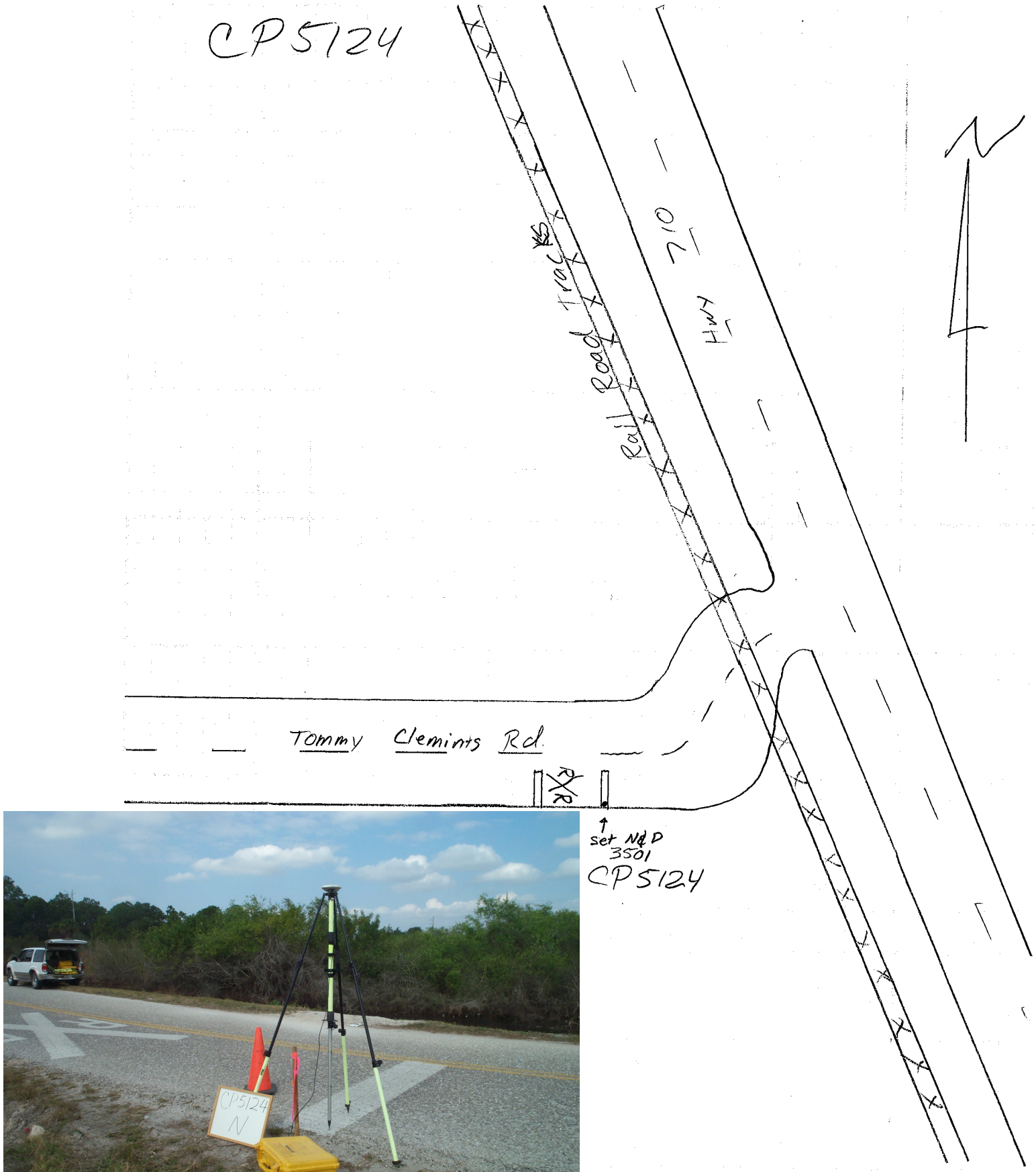
CP5124



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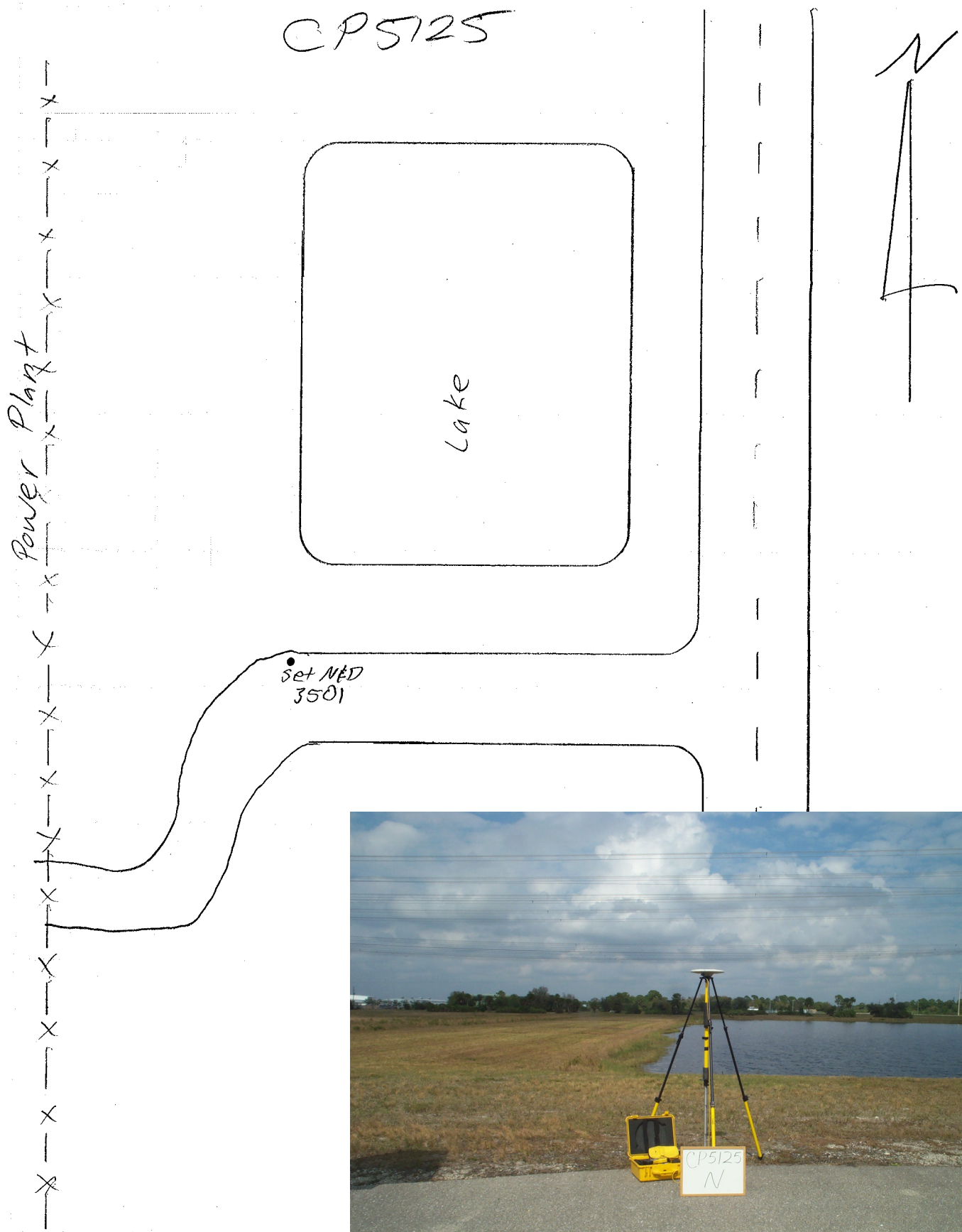
BY _____ JOB NO. _____

CP5125



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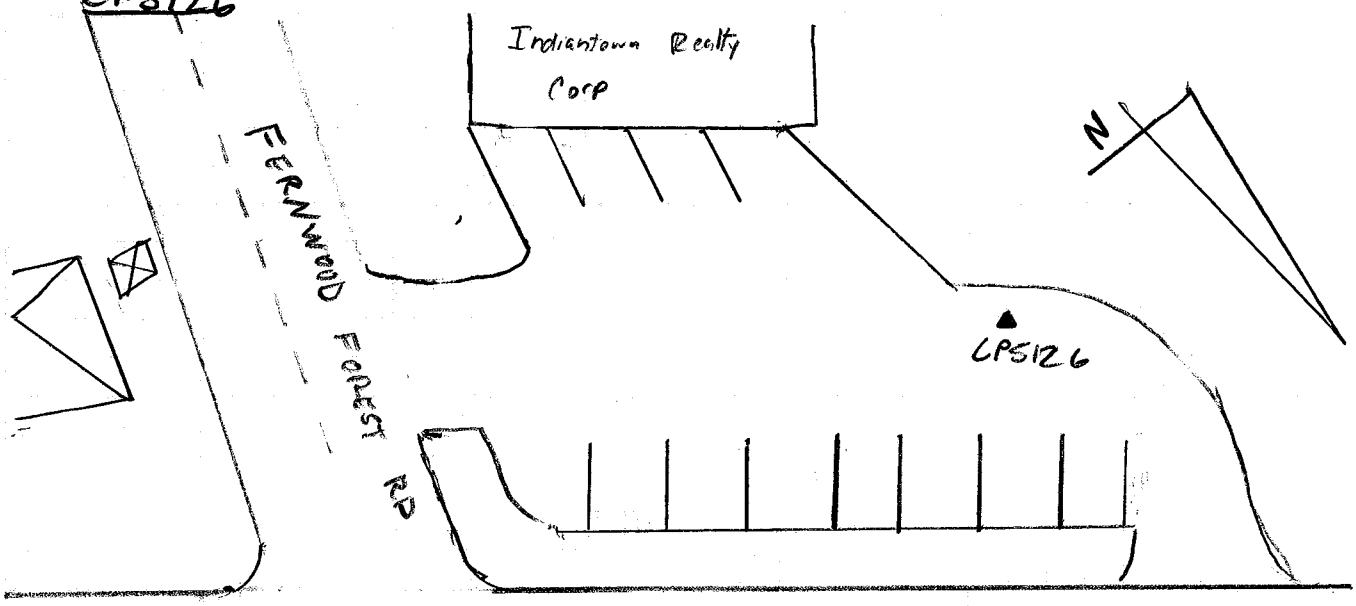
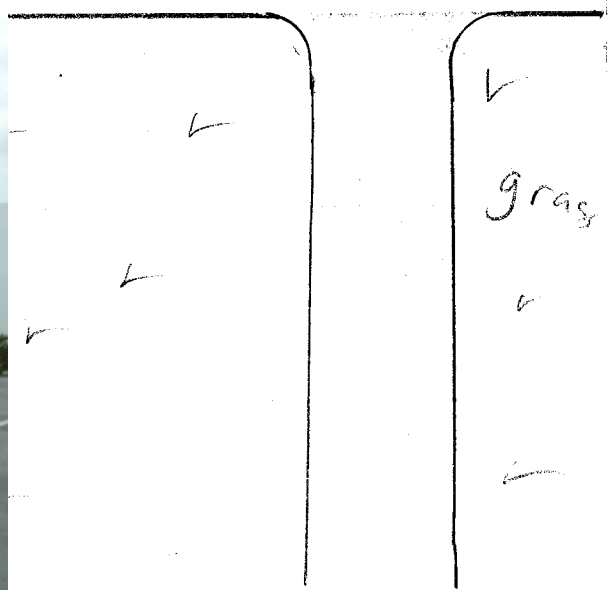
CP5126



710

710





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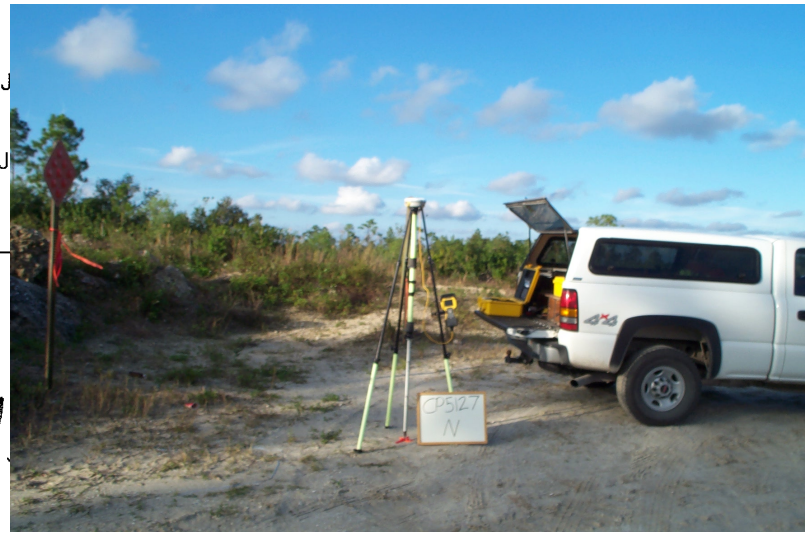
PROJ

SUBJ

BY



CP5127

N

wood's

canal

grass

grass

Driveway
Conc.

1 story
stucco

wood's

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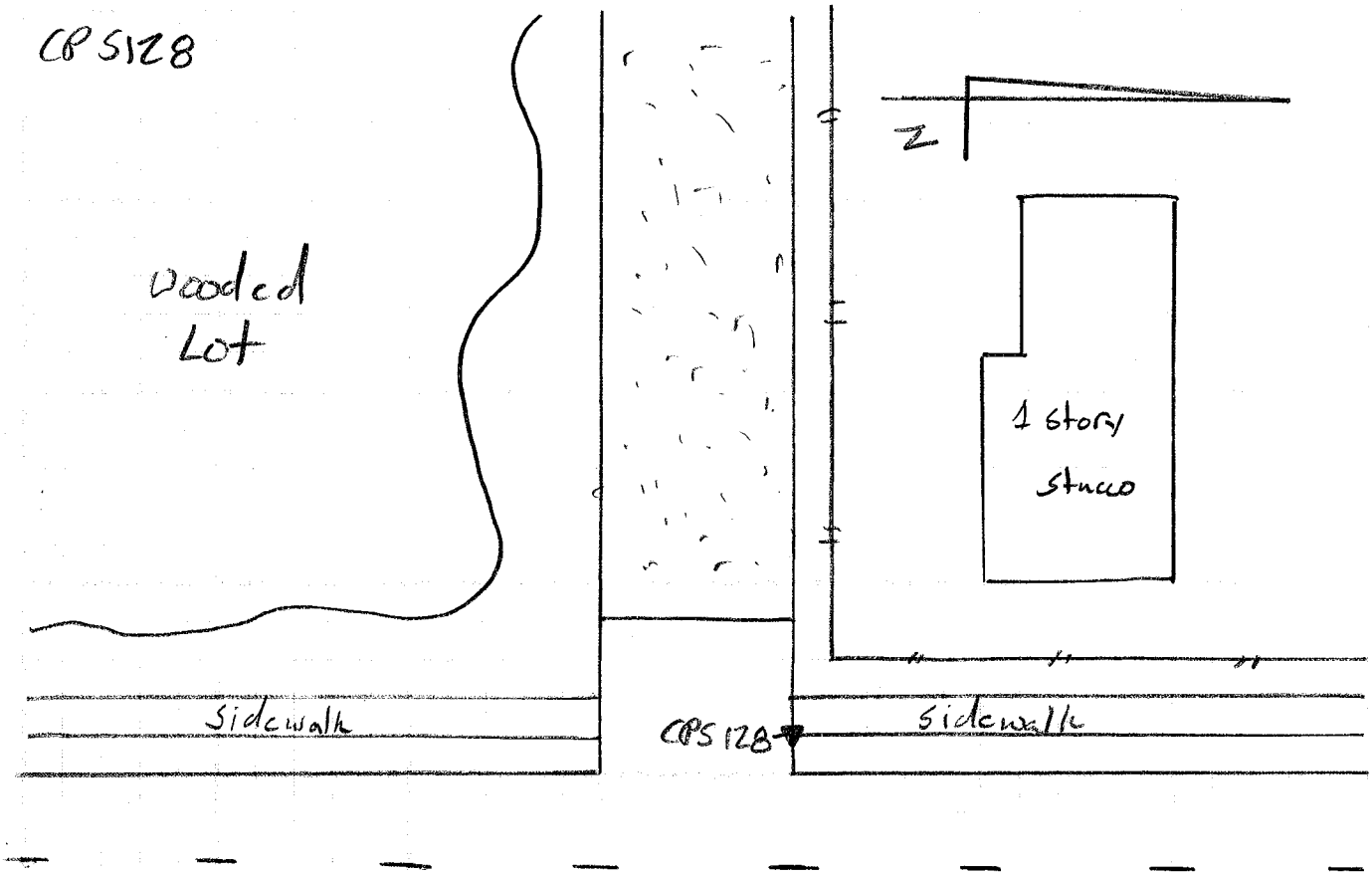

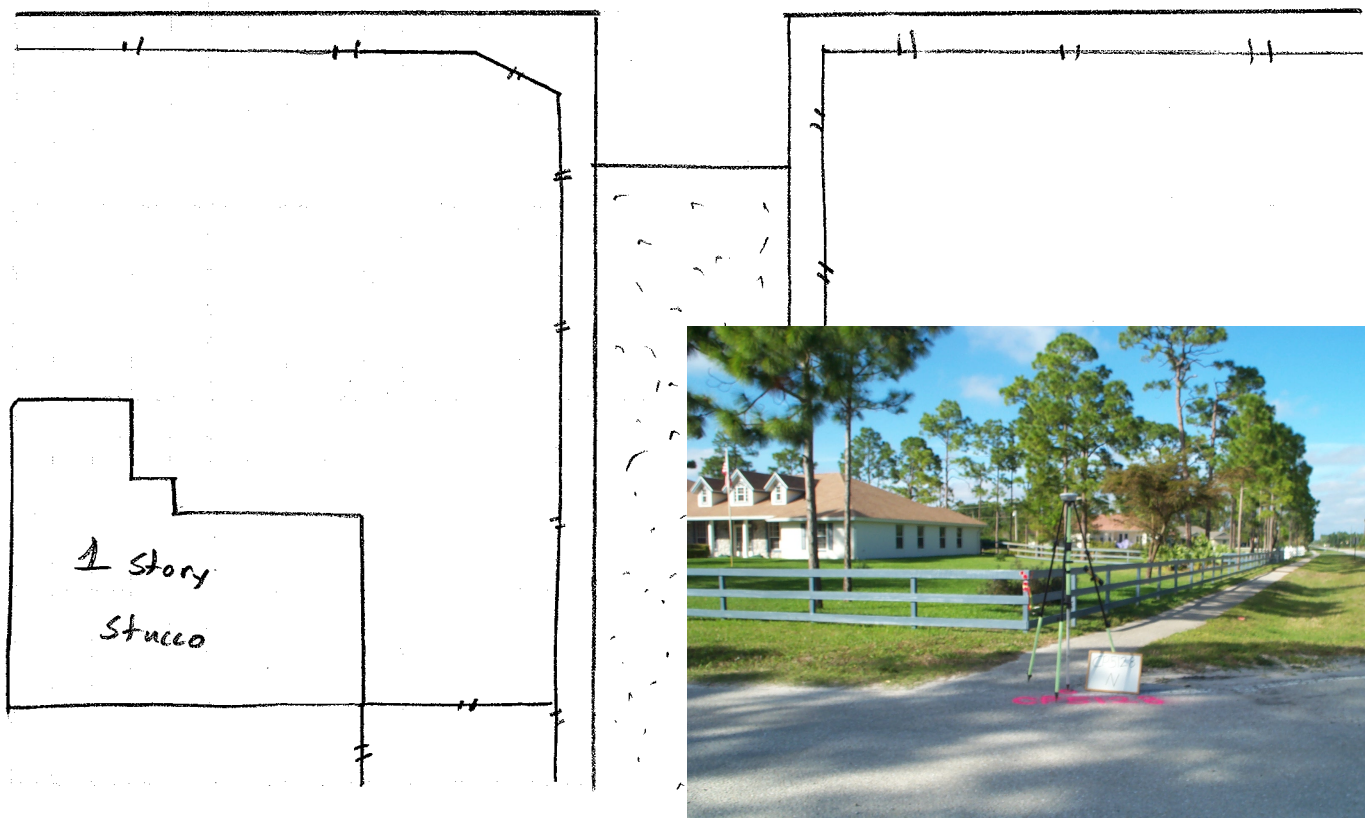

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PROJ

SUBJ

BY



CP 5129

N

Brick sign
Entrance
Fox Trail

Brick sign
Entrance Fox Trail

Yellow Stables

Split rail Fence

set N&D 3501

← 441 W

441 E →

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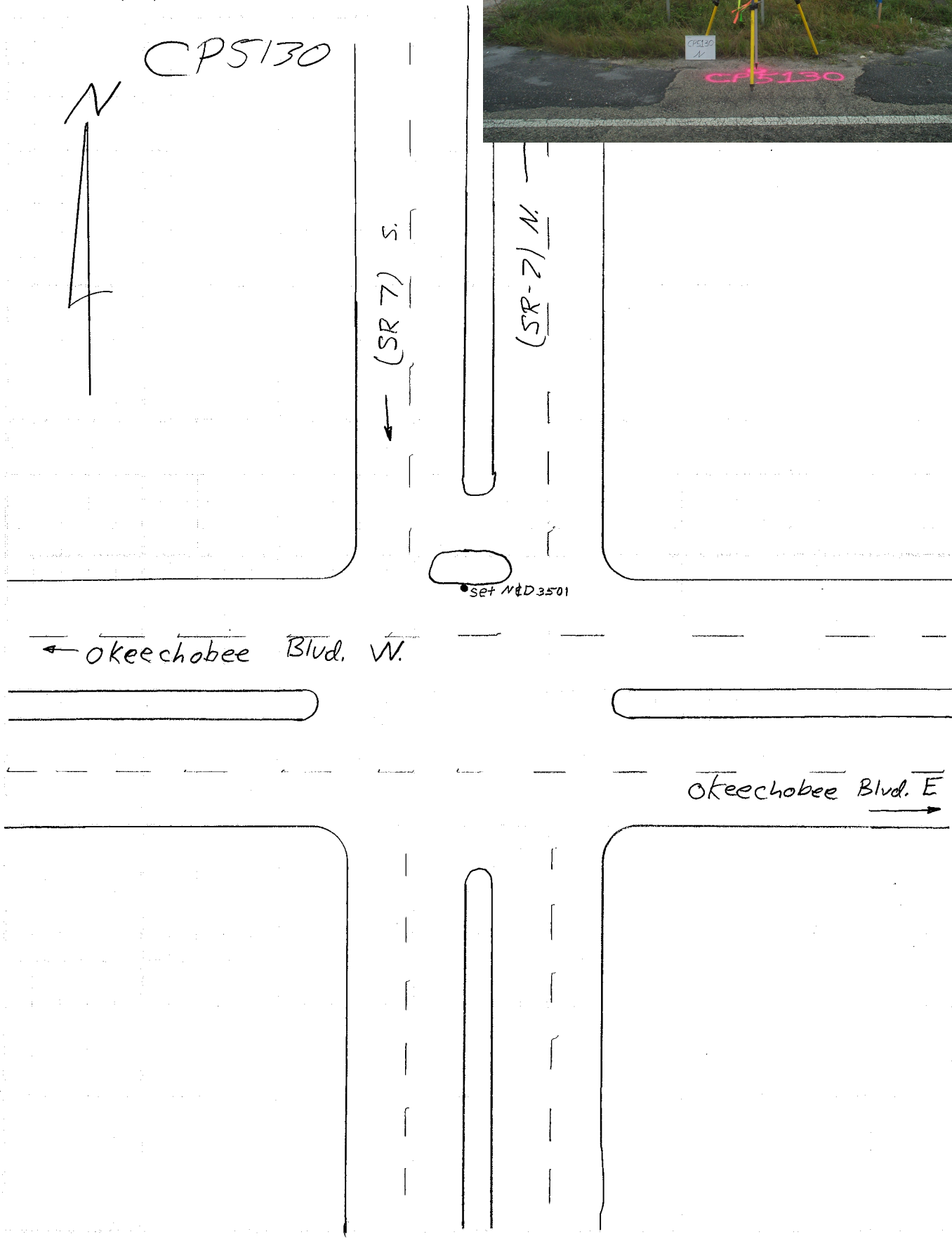

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CP 5131



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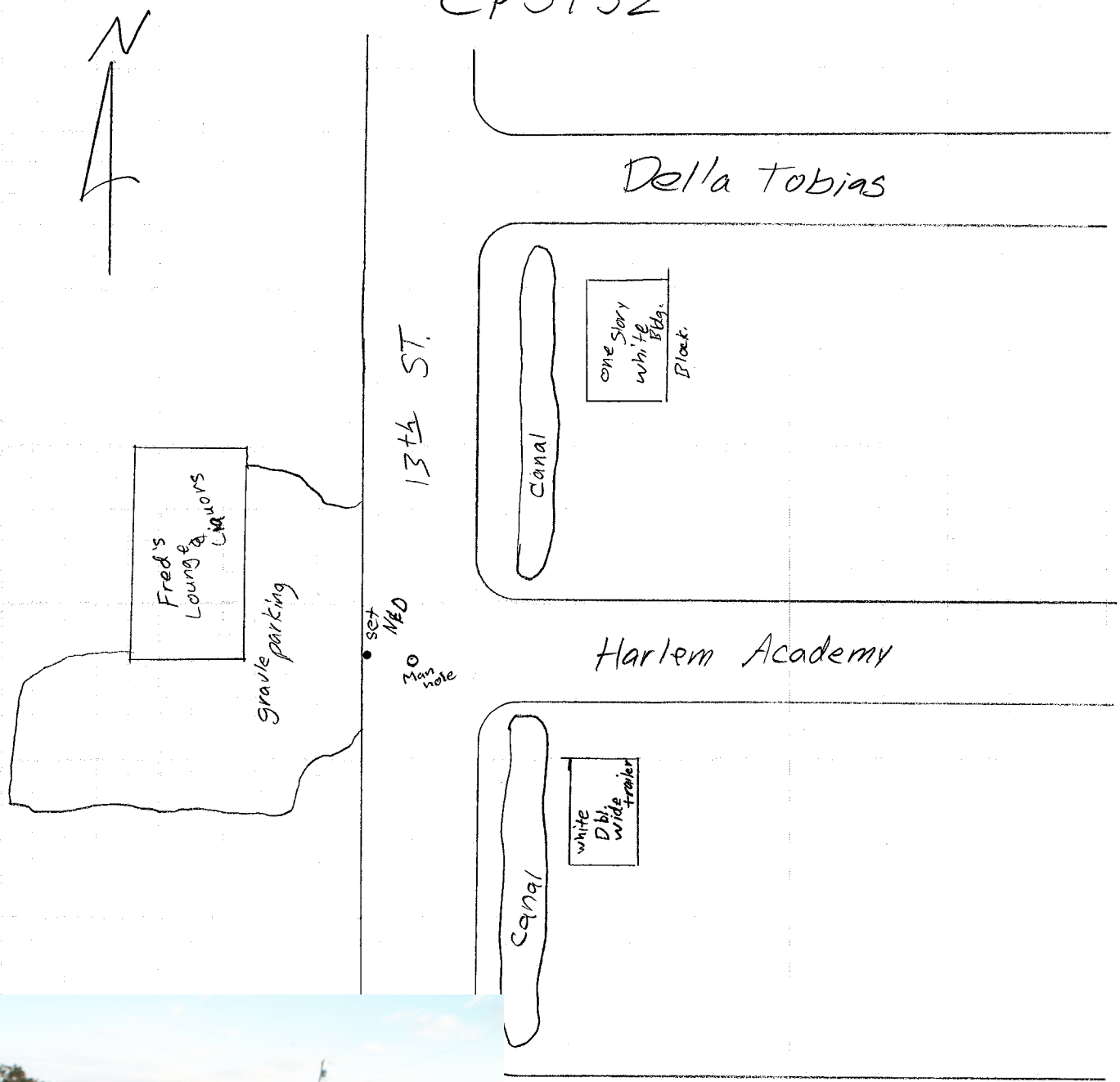
CP5132





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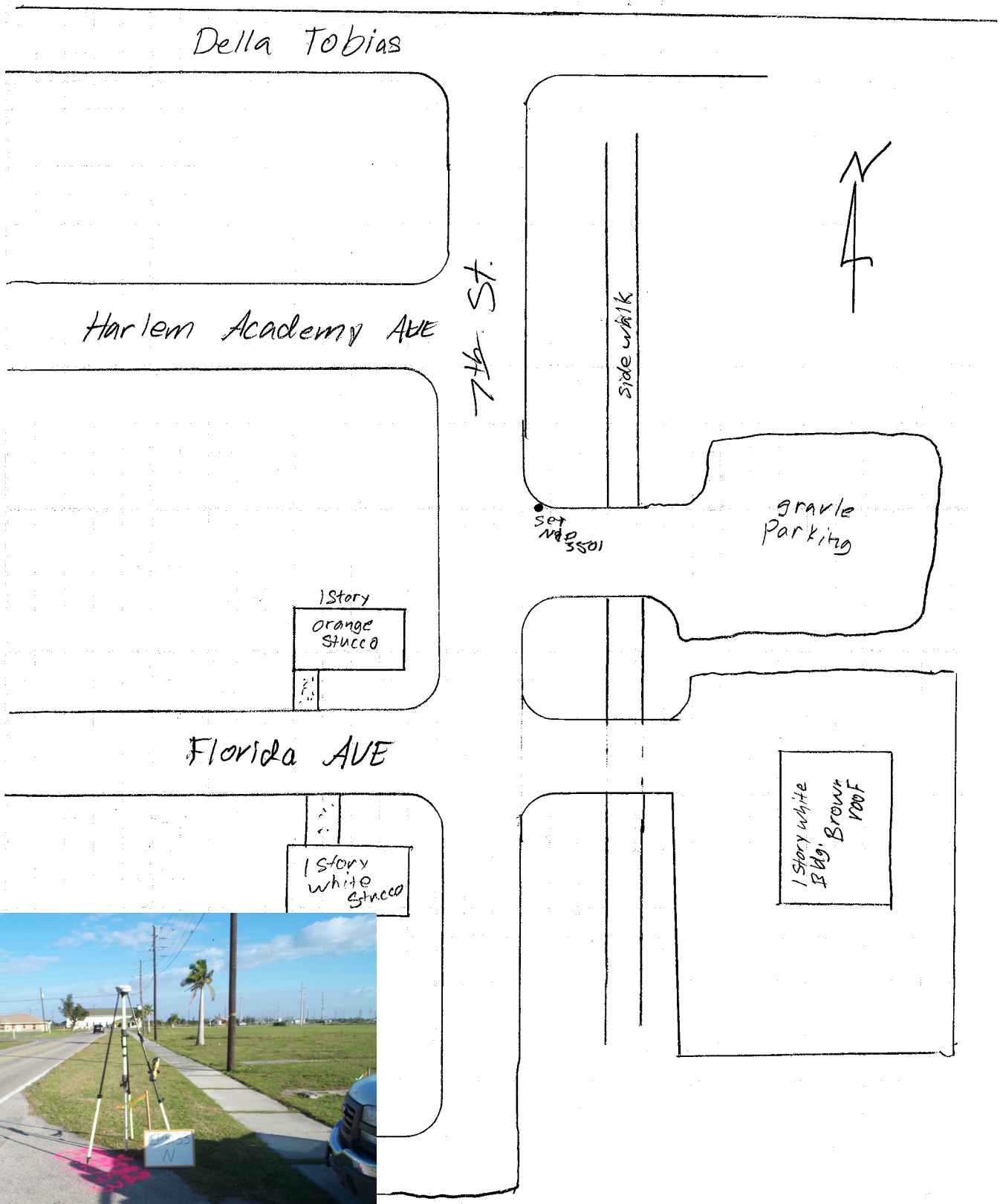
CP5153



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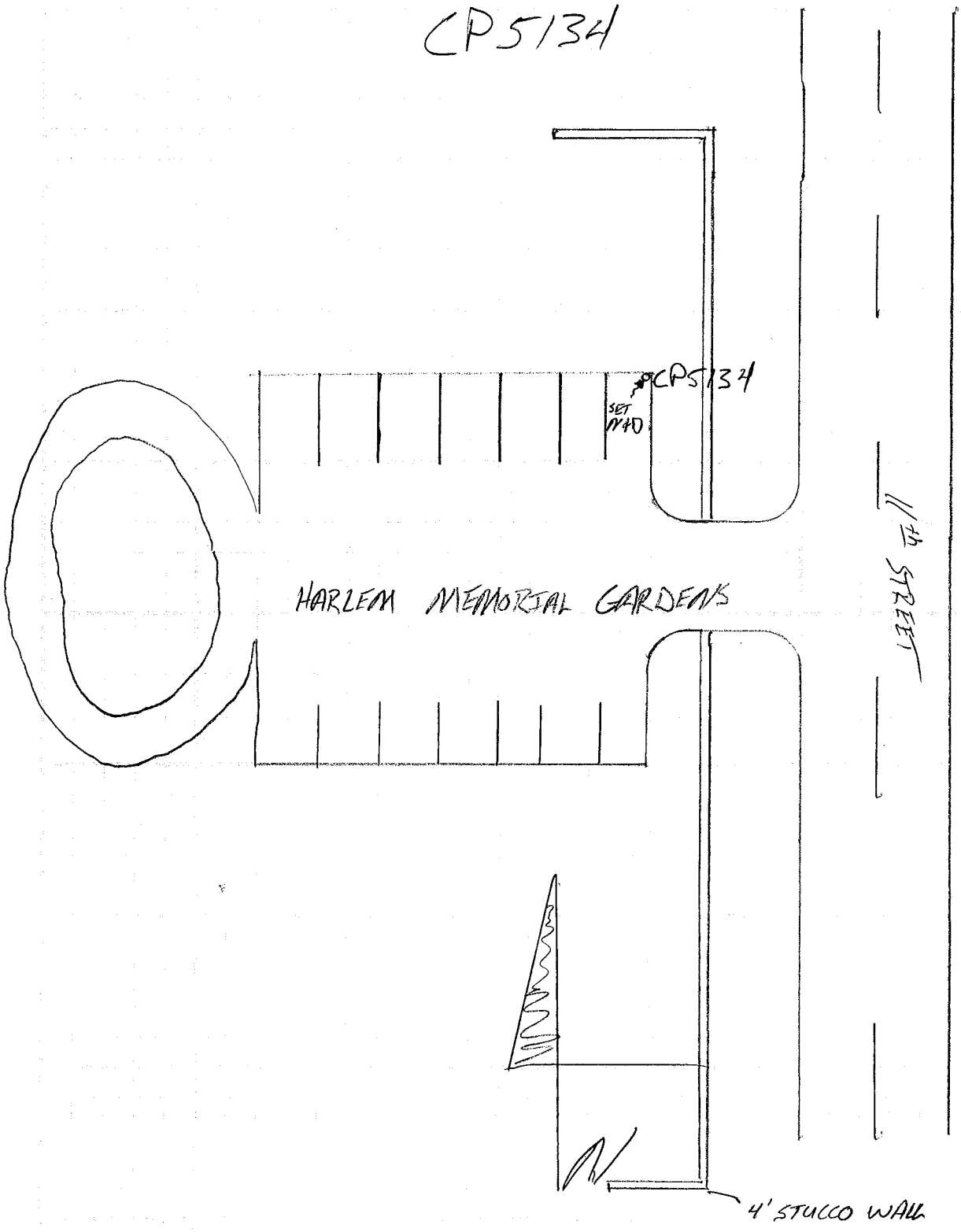

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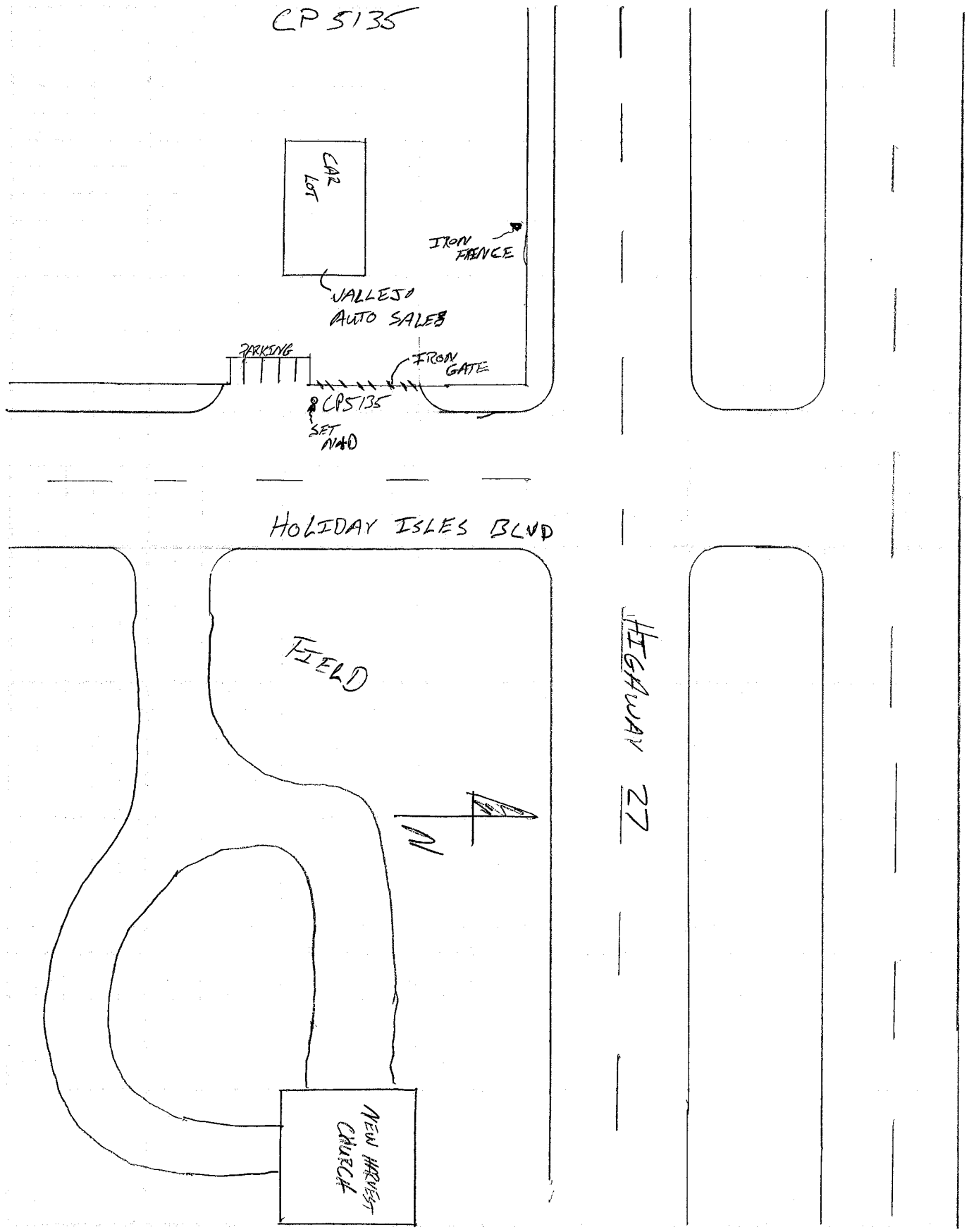

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CP 5137



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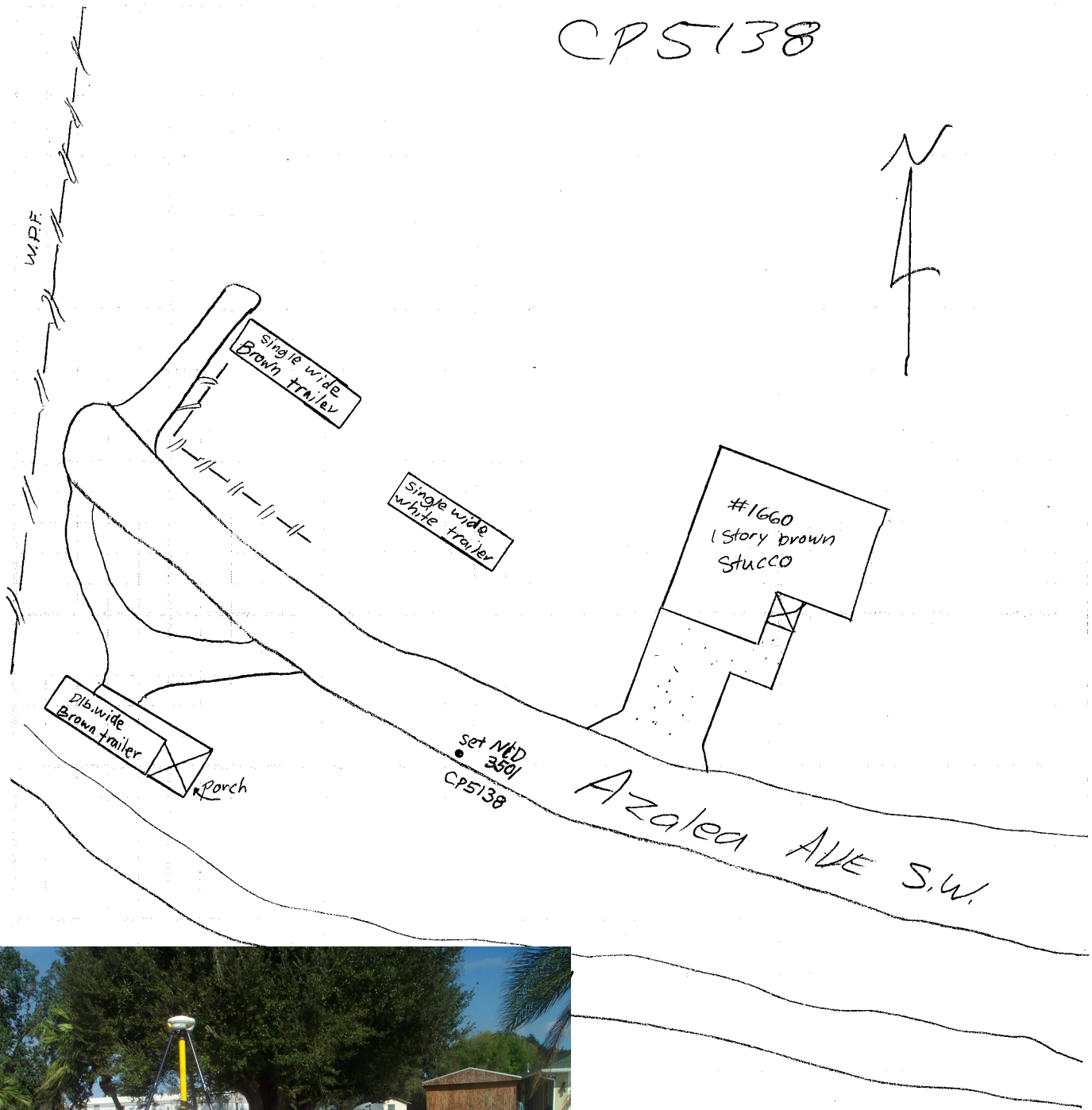
CP5138





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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5139

N

1 Story peach stucco

North AVE S.W.

Corn Field

canal

West AVE S.W.

set N&D 3501

1 Story Brown trailer

1 Story Brown vynle garage



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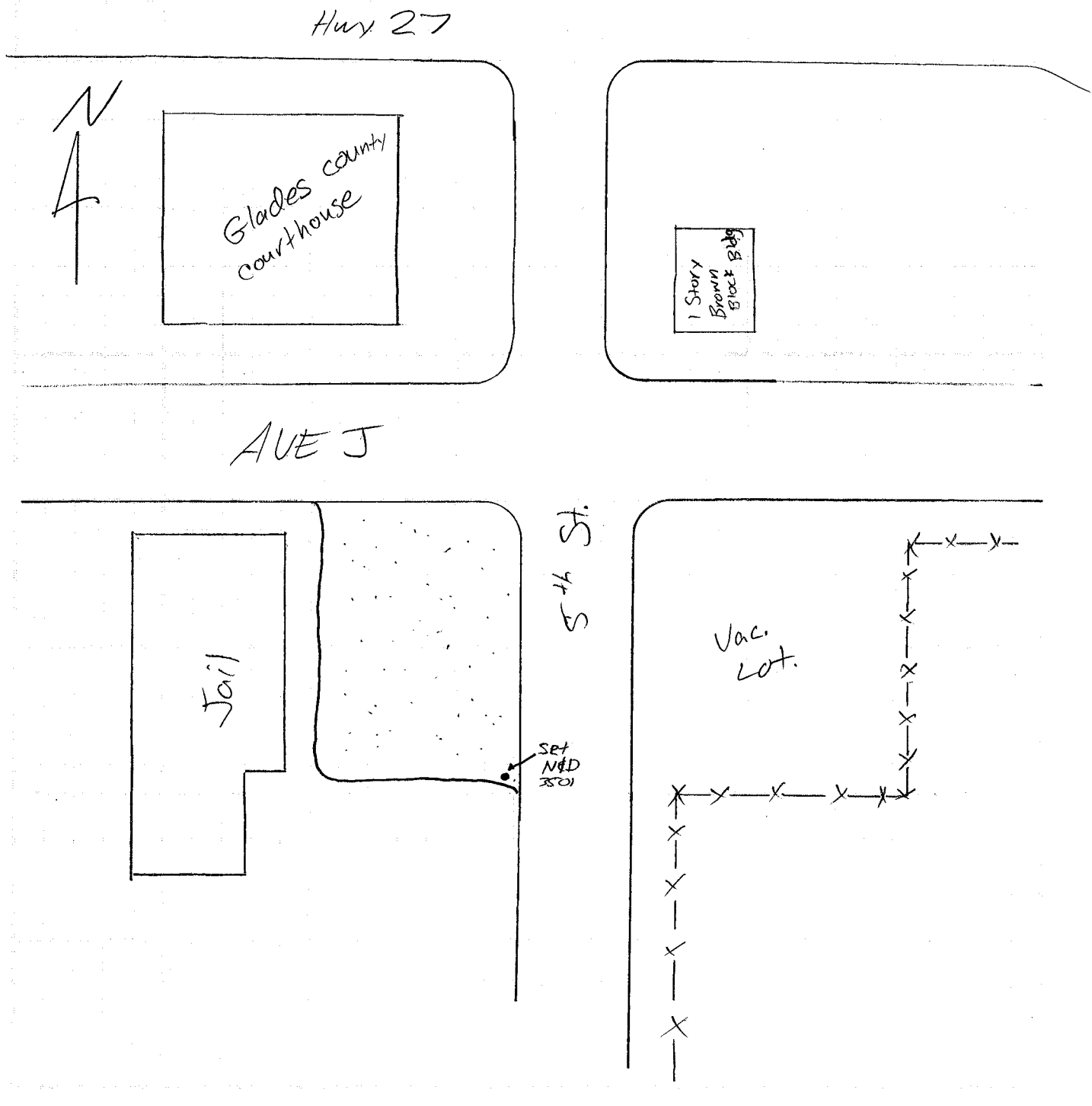
BY _____ JOB NO. _____

CP5140



GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5141

HIGHWAY 27

N

SCHOOL

10th ST.

SCHOOL BUS GARAGE

CP5141

SET N40

BALL FIELD



AVENUE R

GUSTIN, COTHERN & TUCKER, INC.
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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

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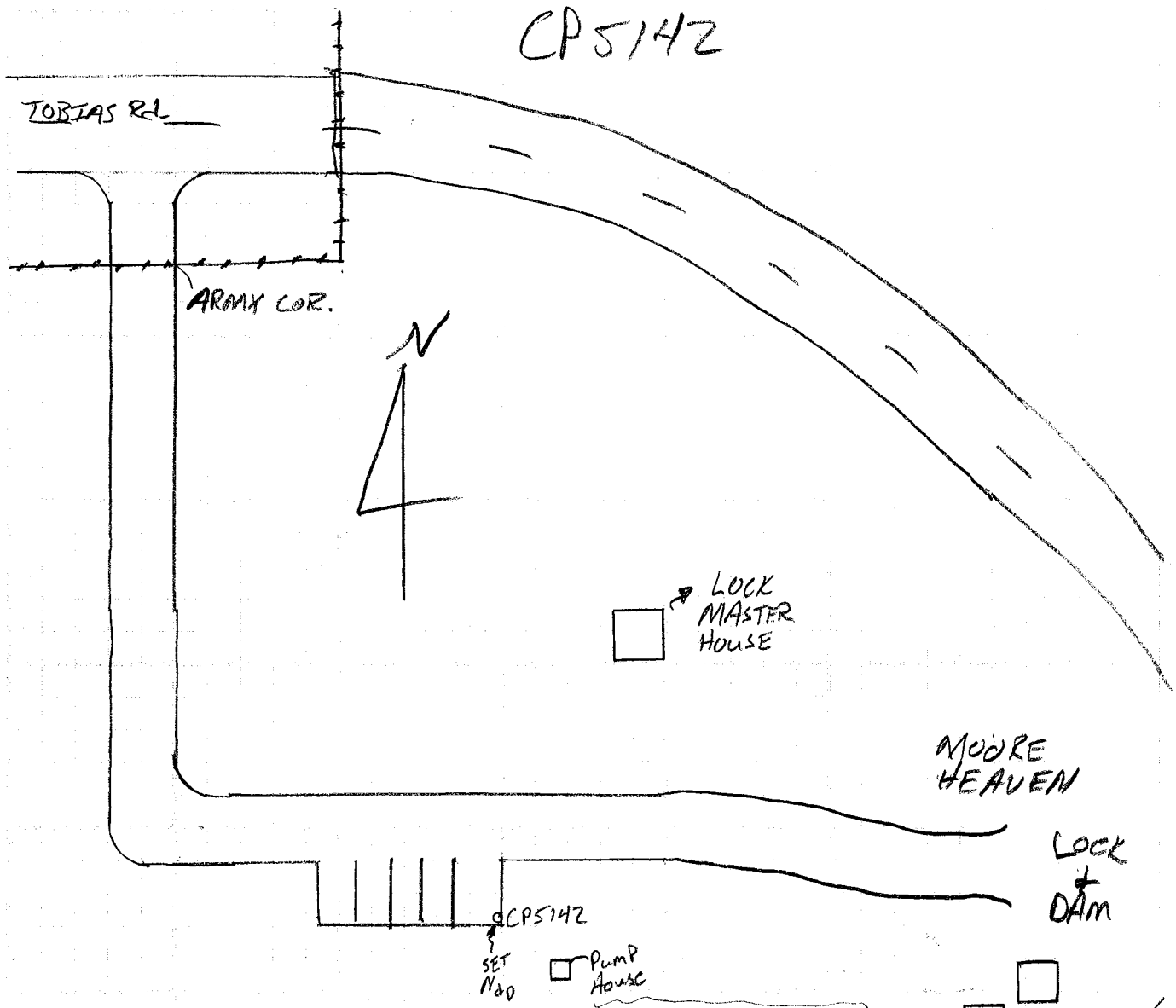



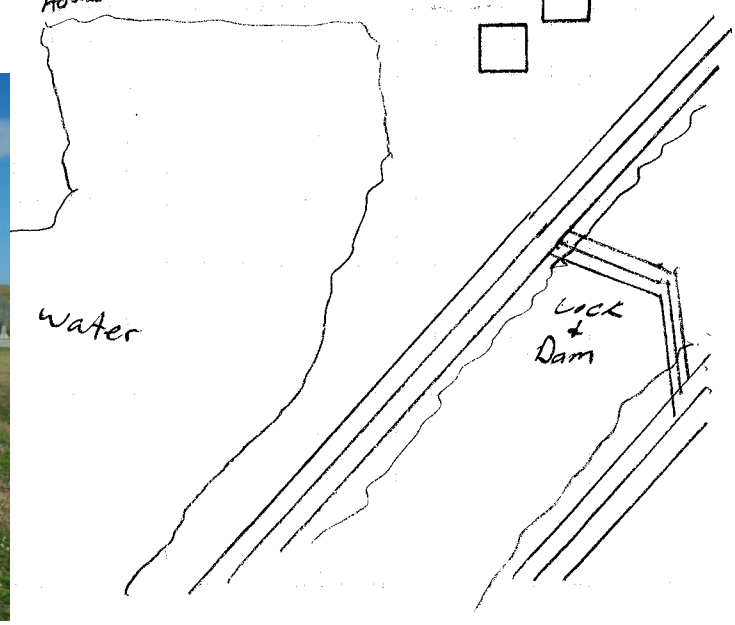

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PROJECT _____

SUBJECT _____

BY _____

CP 5143



TRAILER PARK

R&R CROSSING

DANIEL'S Rd.

DANIEL'S Rd.

HIGHWAY 27

DANIEL'S Rd

SET N&D

CP 5143

Hwy 27 OVER PASS

PRIVATE DR.

2 STORY UNDER CONST.

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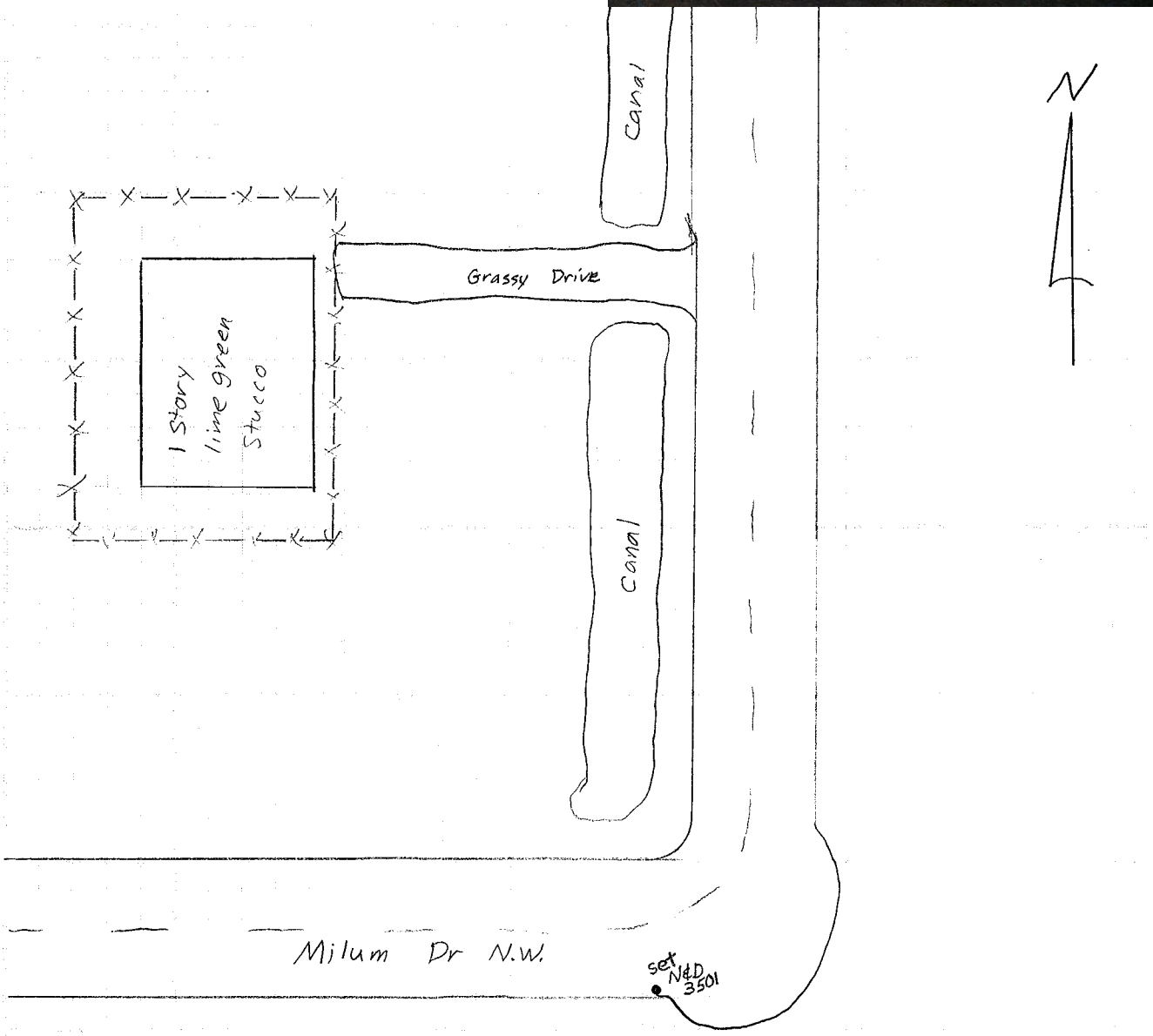
PROJECT

SUBJECT

BY

CP5144





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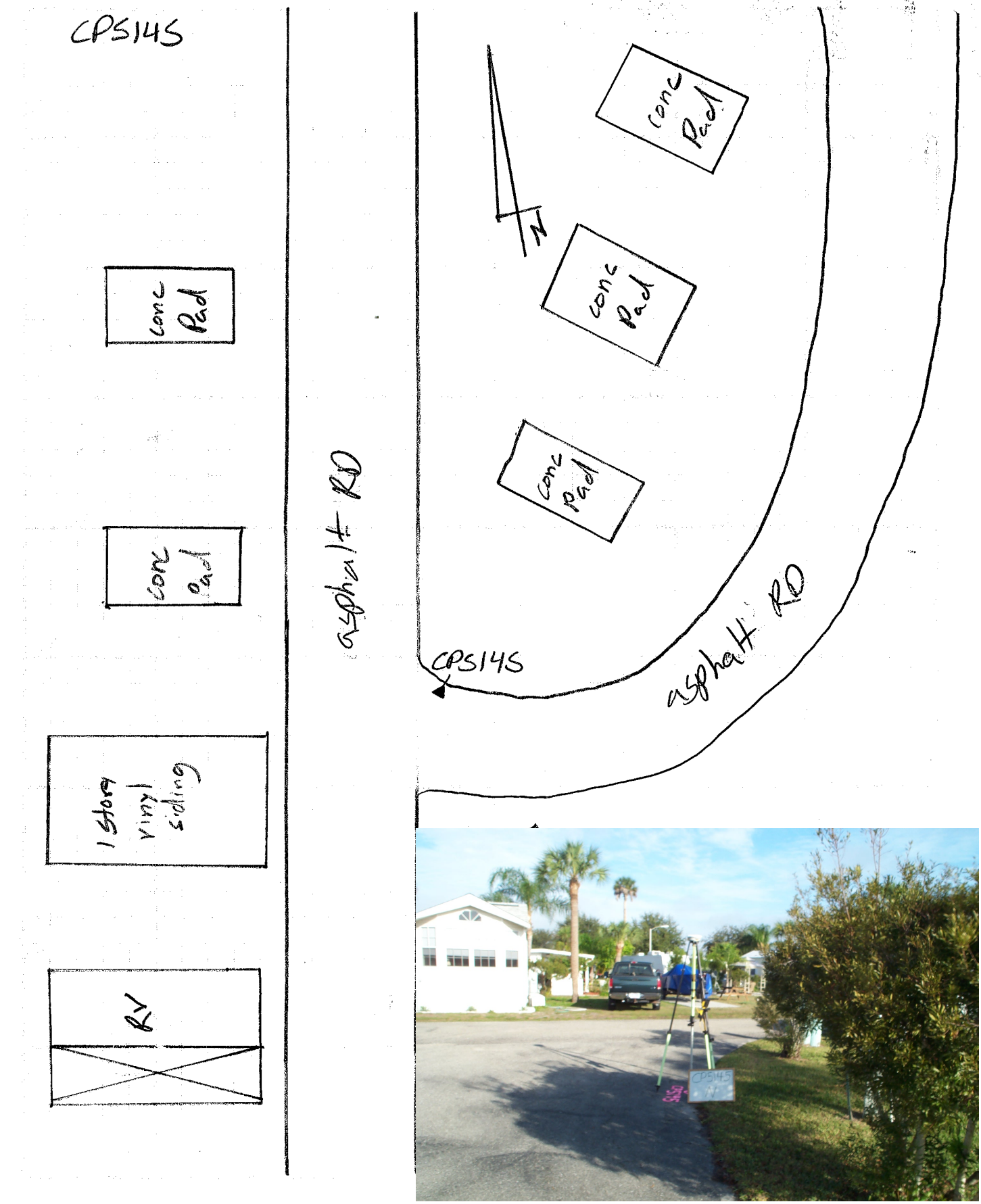
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

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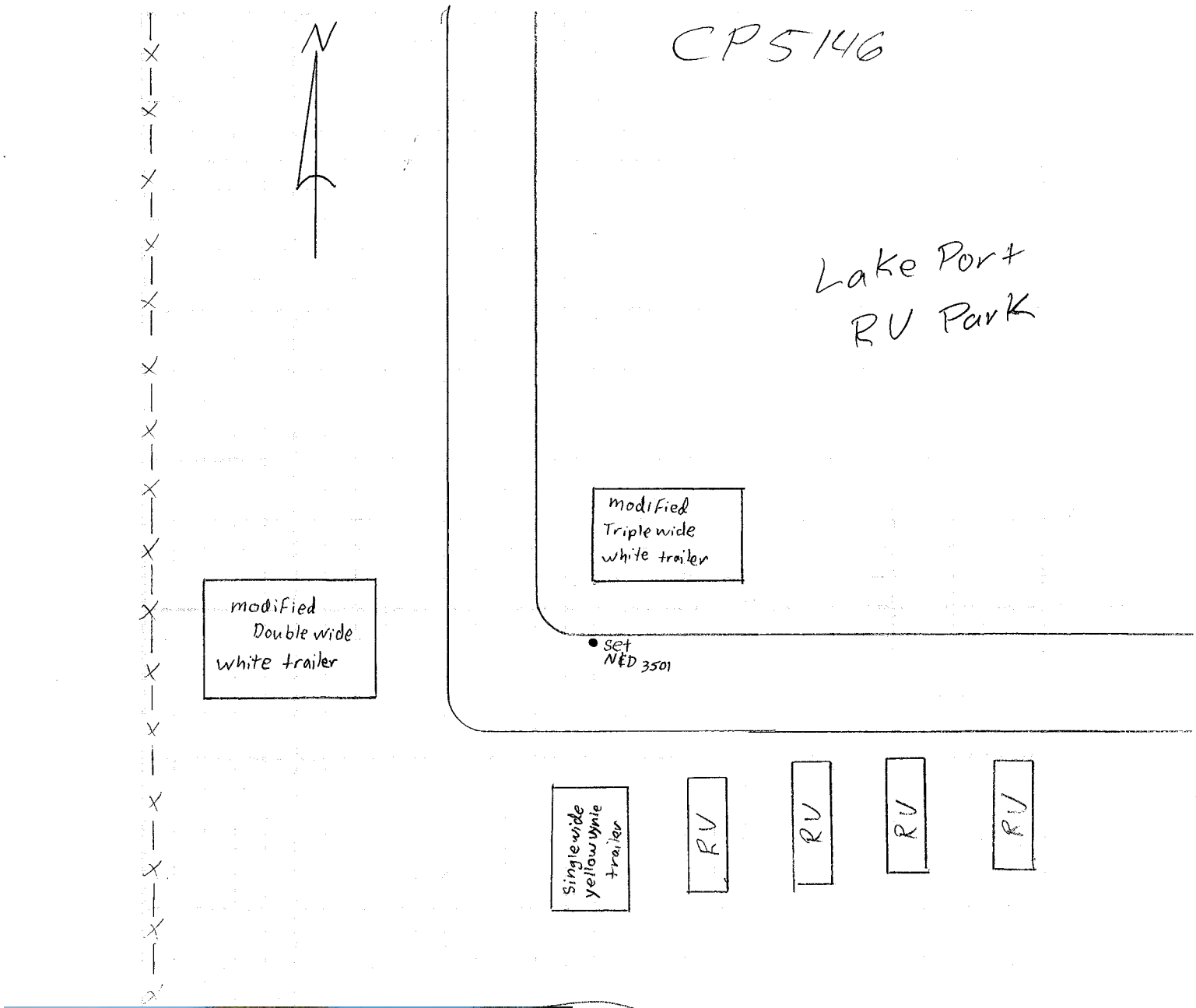



Canal

GUSTIN, COTHERN & TUCKER, INC.
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(850) 678-5141

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SUBJECT _____ DATE _____

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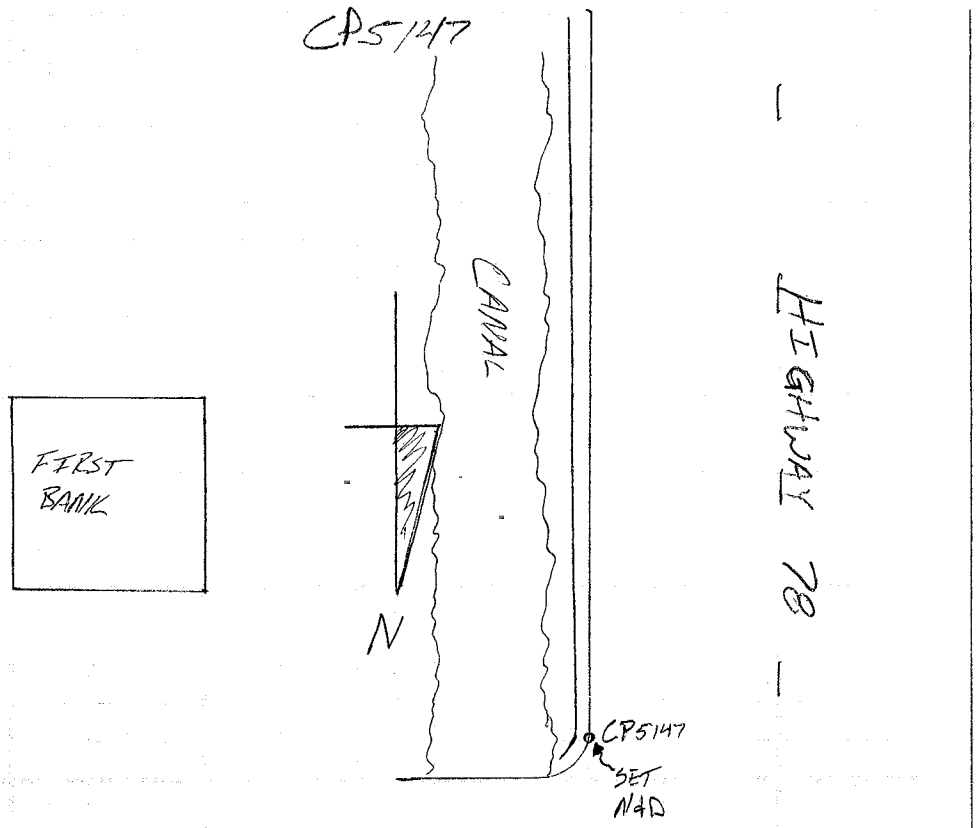





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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

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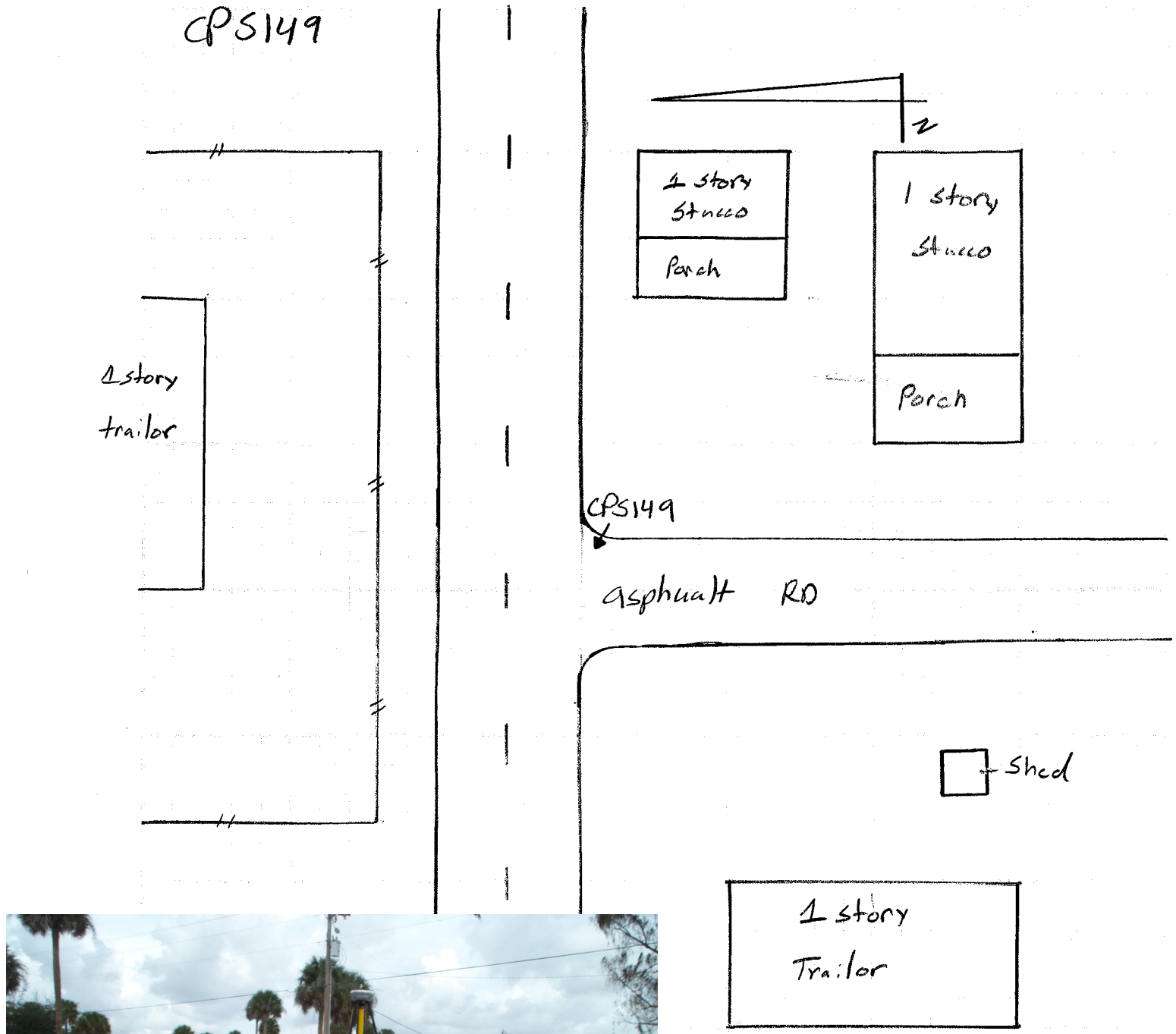



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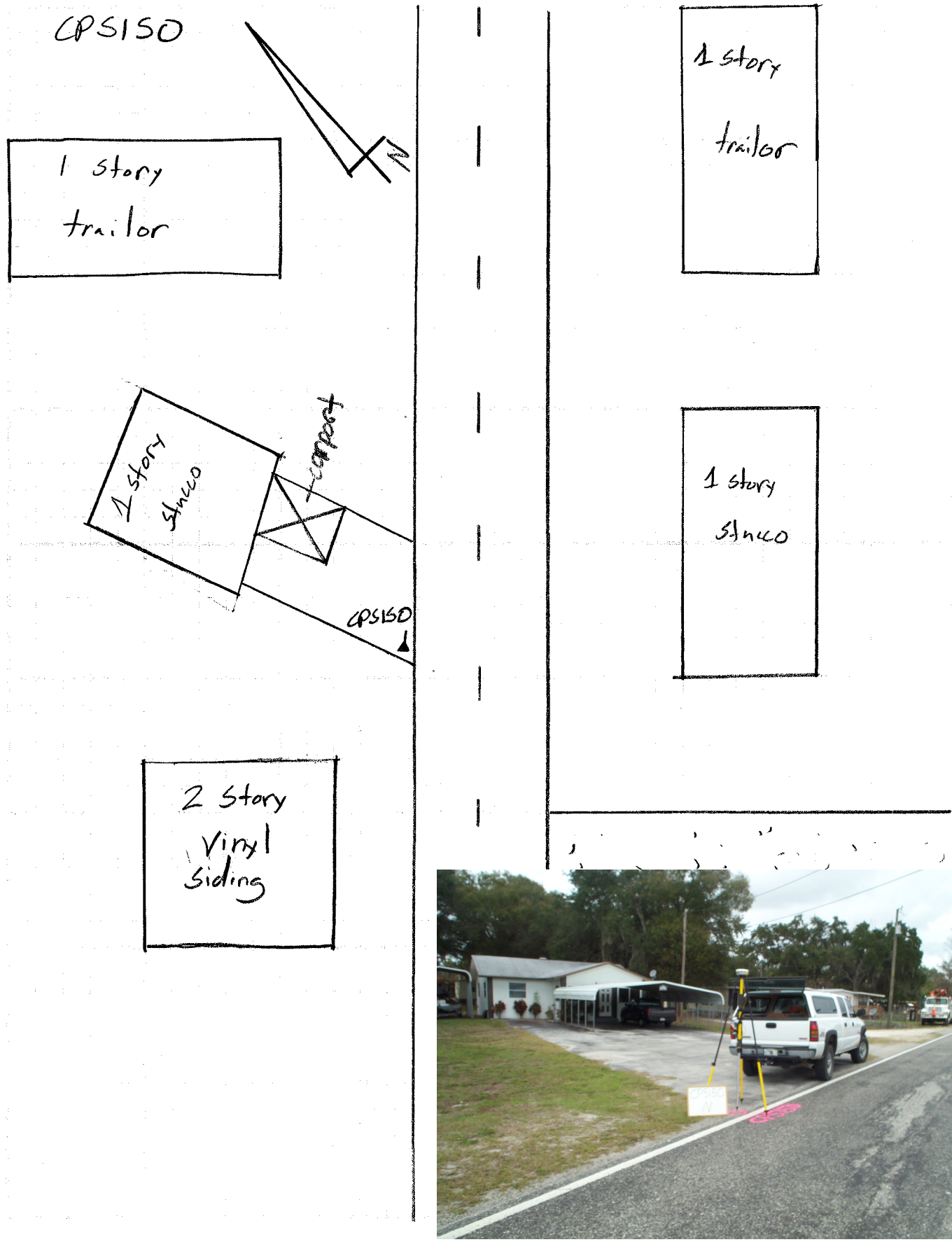

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PRO.

SUBJ.

BY



CP5151

Canal

TRAILERS

TRAILER PARK

Fish Cleaning shed

LIL BIG MANS MARINA & TRAILER PARK

Canal

SCT 721

CP5151 SET NAD

Duplex/ OFFICES

GUSTIN, COTHERN & TUCKER, INC.
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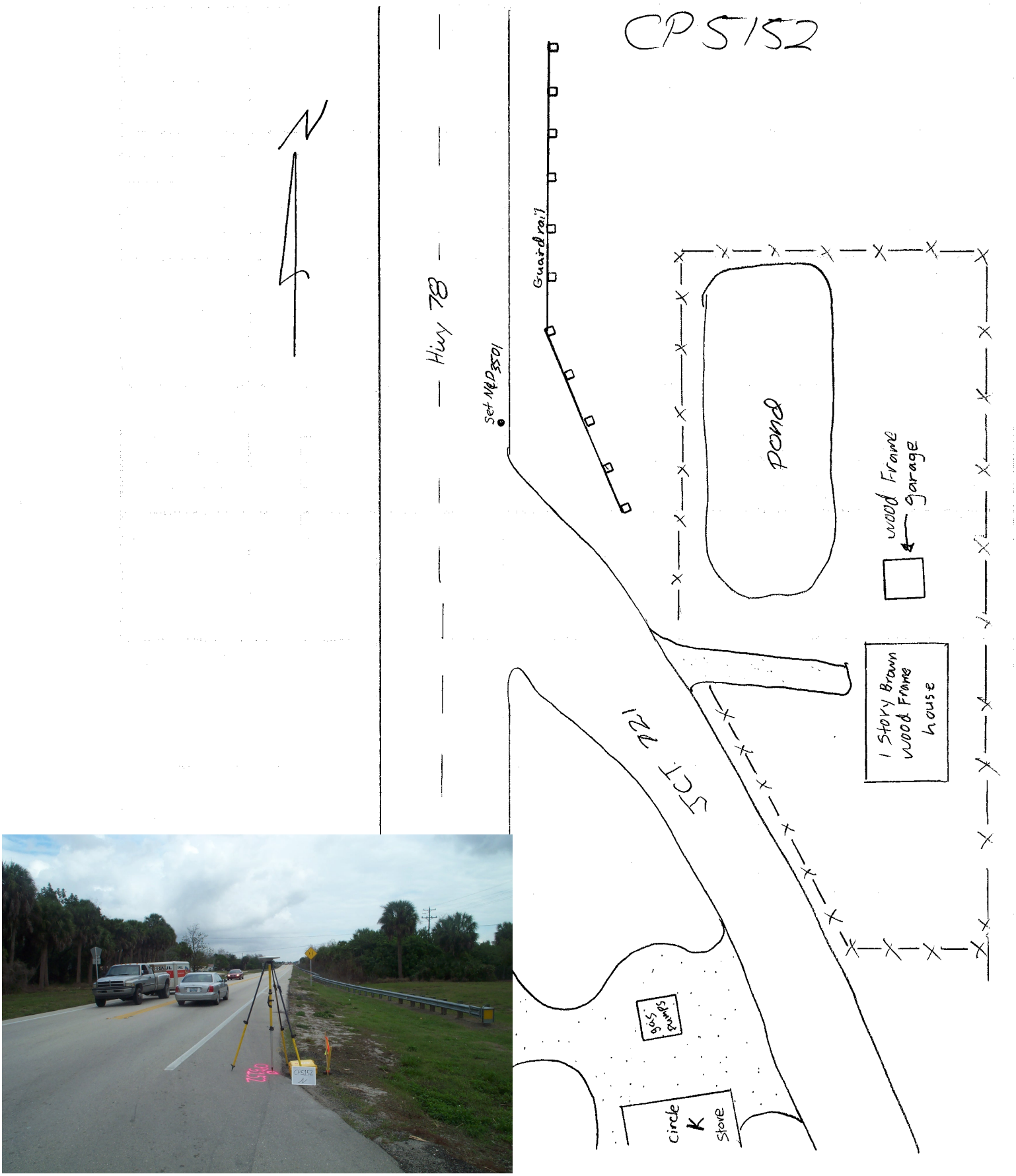
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5152



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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



CP5153

CP5153

LAKEPOINT LODGE INN + RESTAURANT

DUCK PUB

N

GAS STATION

MARATHON

GAS PUMPS

COUNTY ROAD 78

LAKE BREEZE RV PARK

GUSTIN, COTHERN & TUCKER, INC.
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SUBJECT _____ DATE _____

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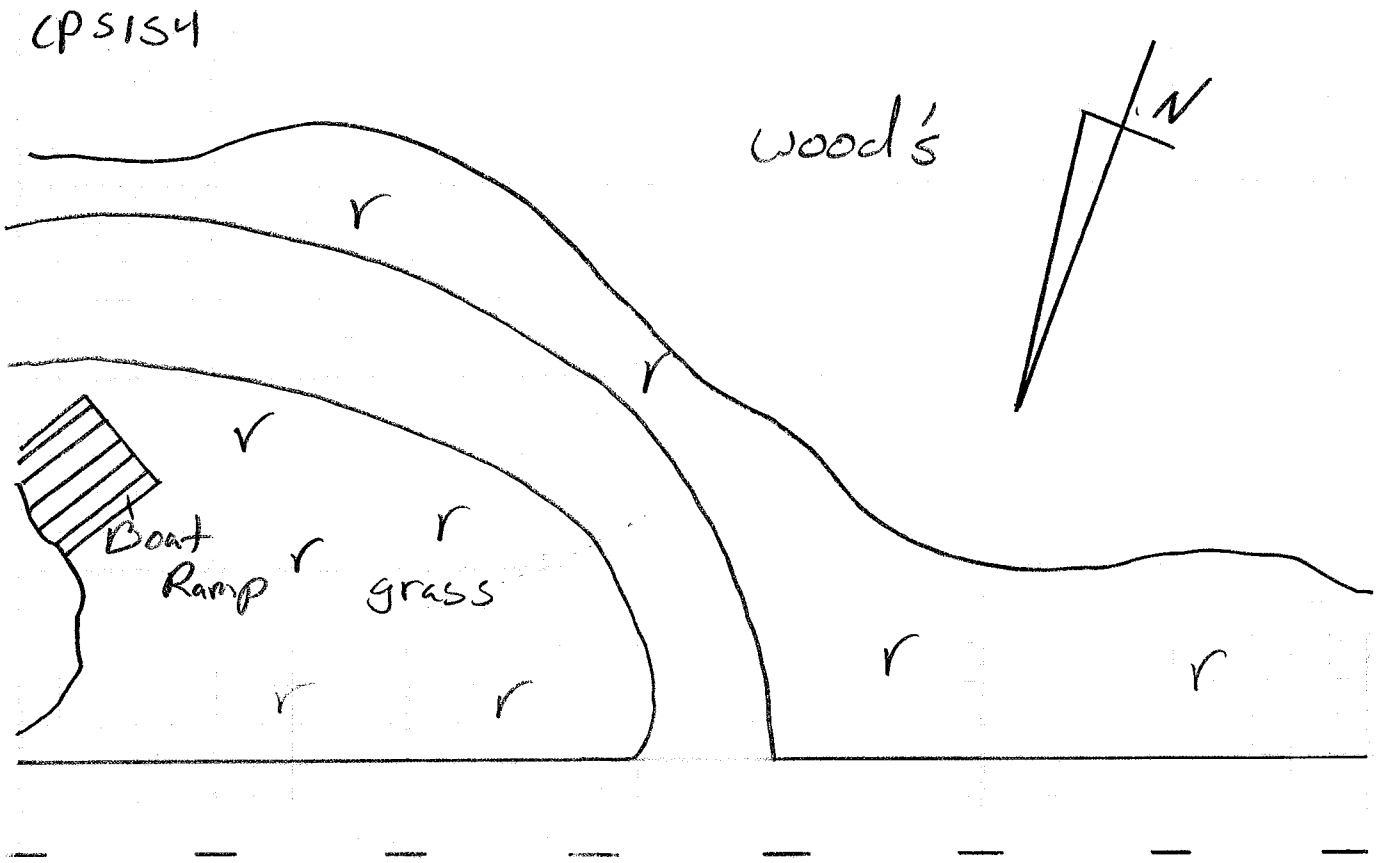

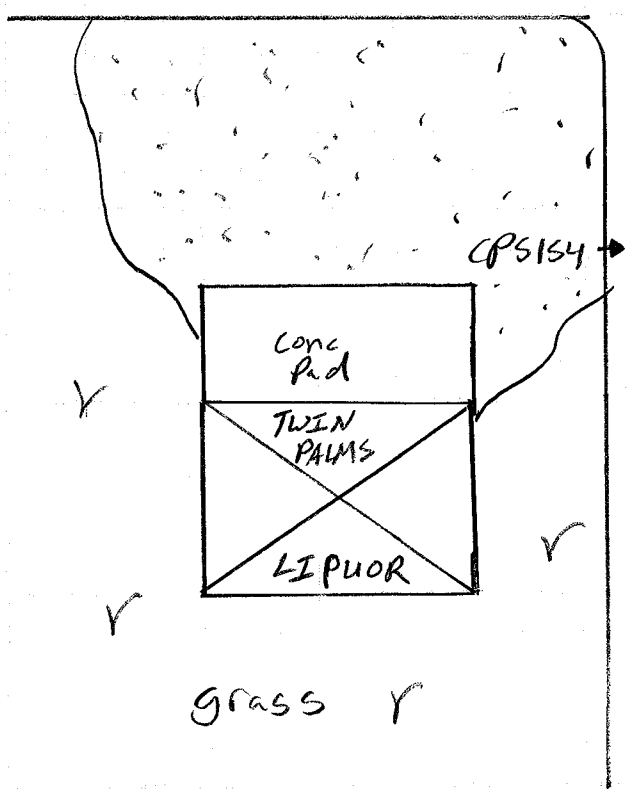

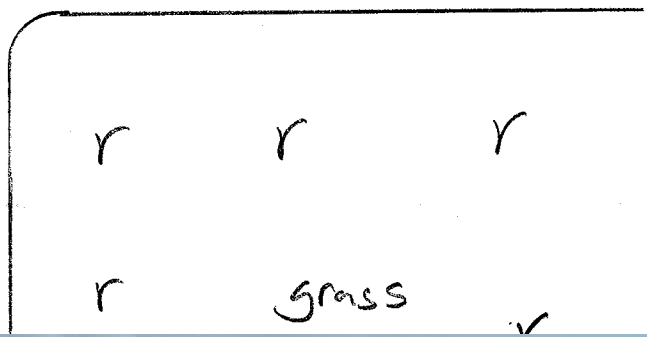



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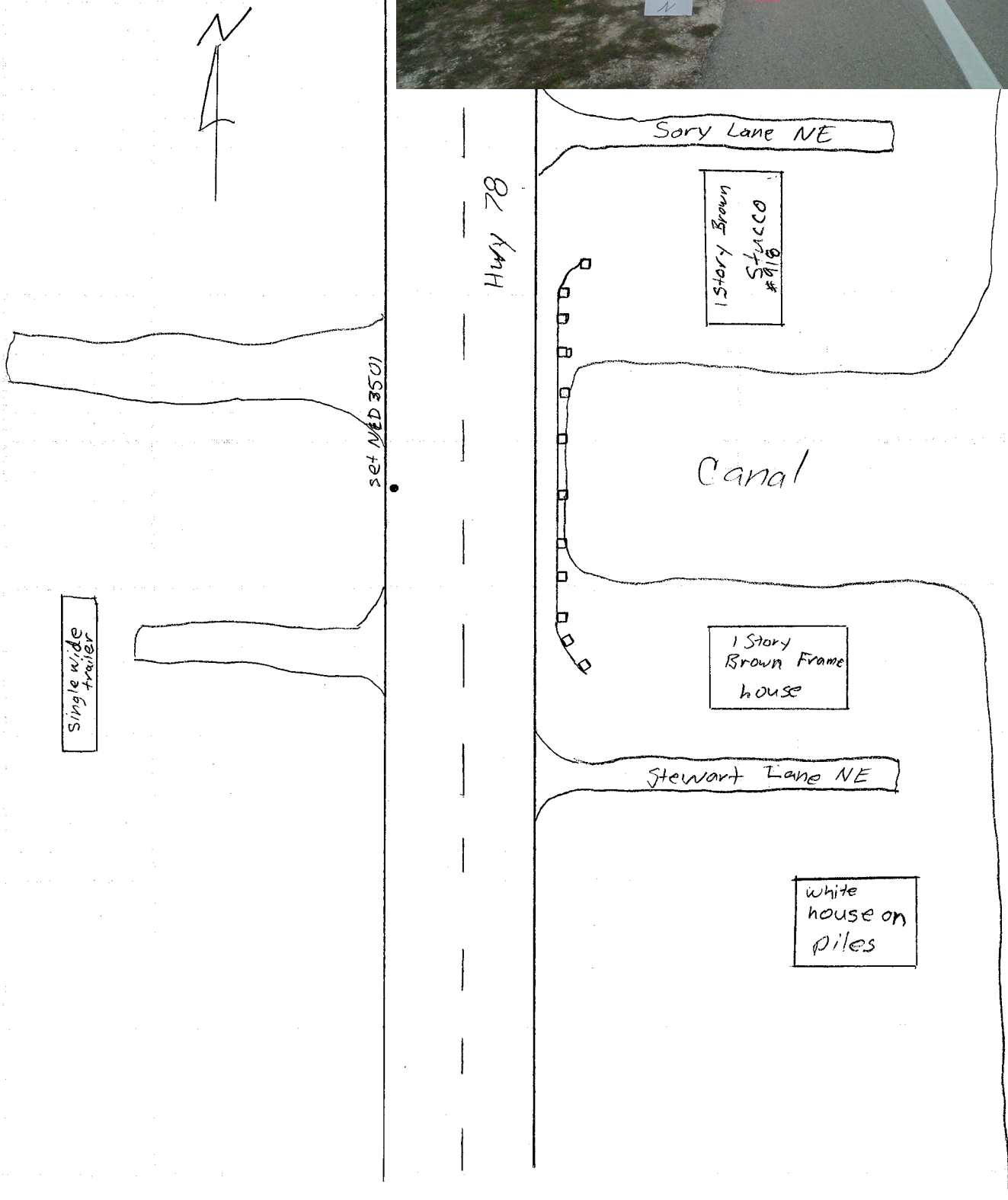
CP5155





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NICEVILLE, FLORIDA 32578
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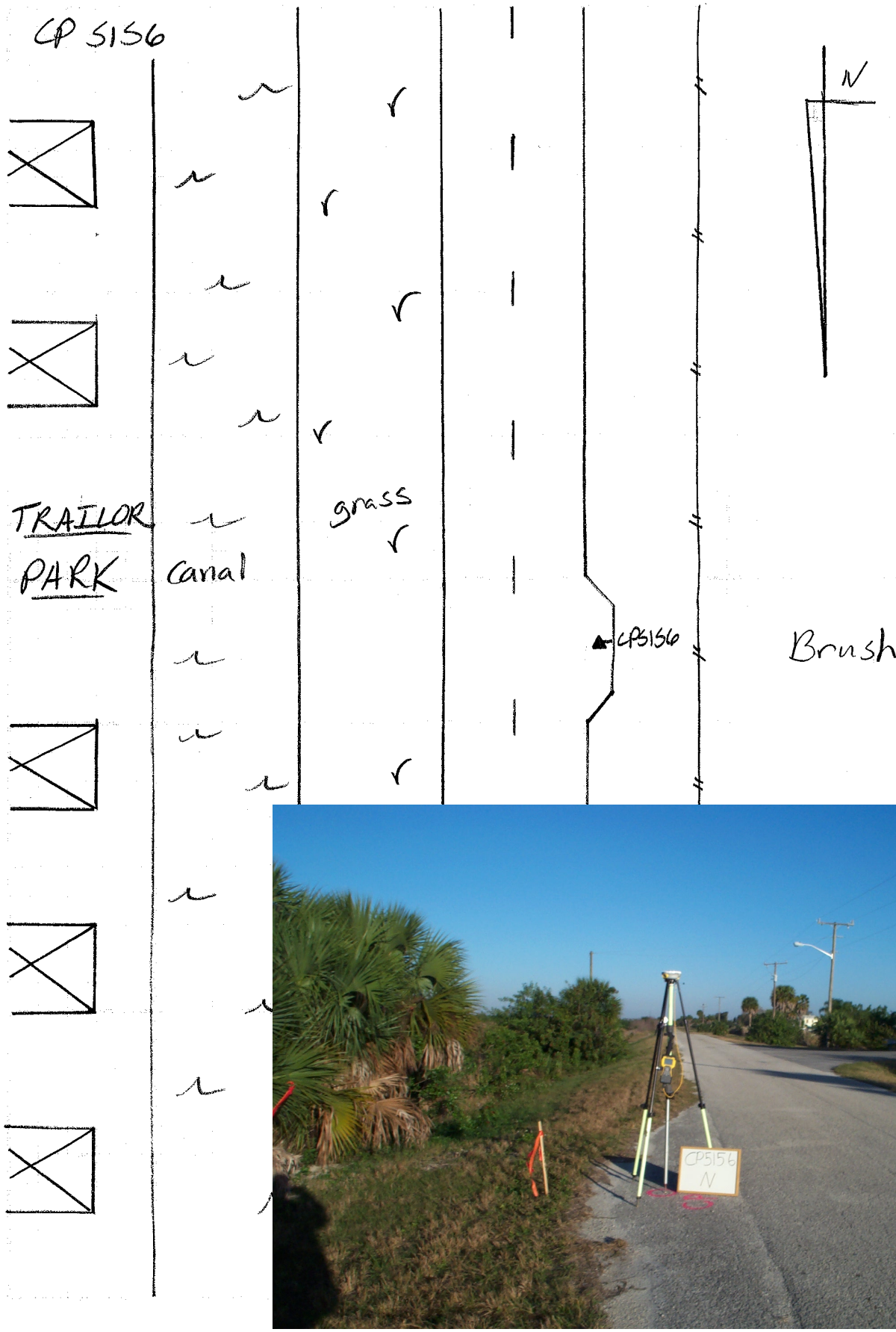
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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PROJECT _____ SHEET _____ OF _____

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BY _____ JOB NO. _____



CP5157

N

Frisco Custom Metals

Guard rail

Hwy 78

set N&D 3501

1 story stucco Bldg. VFW

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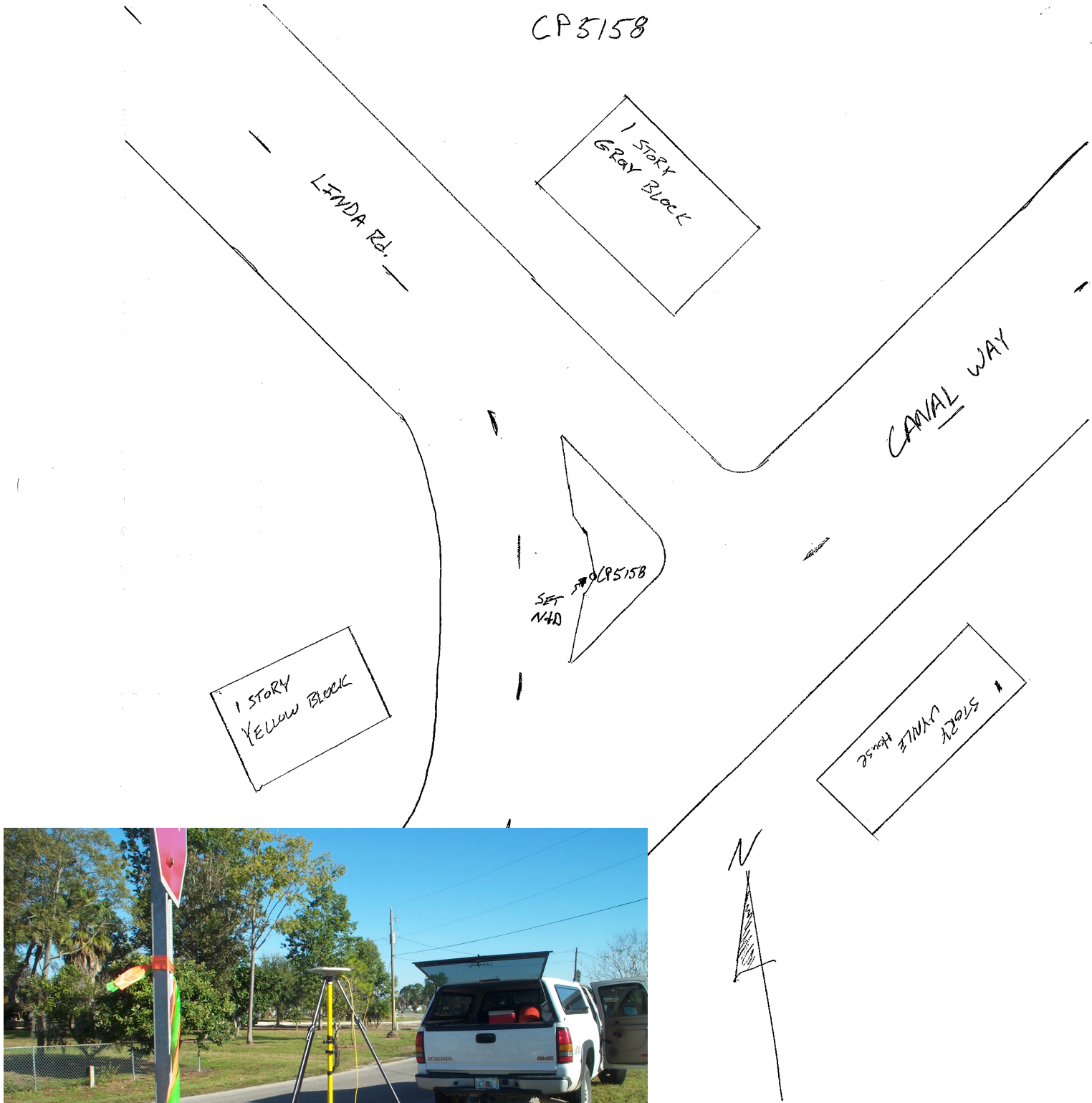
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5158



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ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
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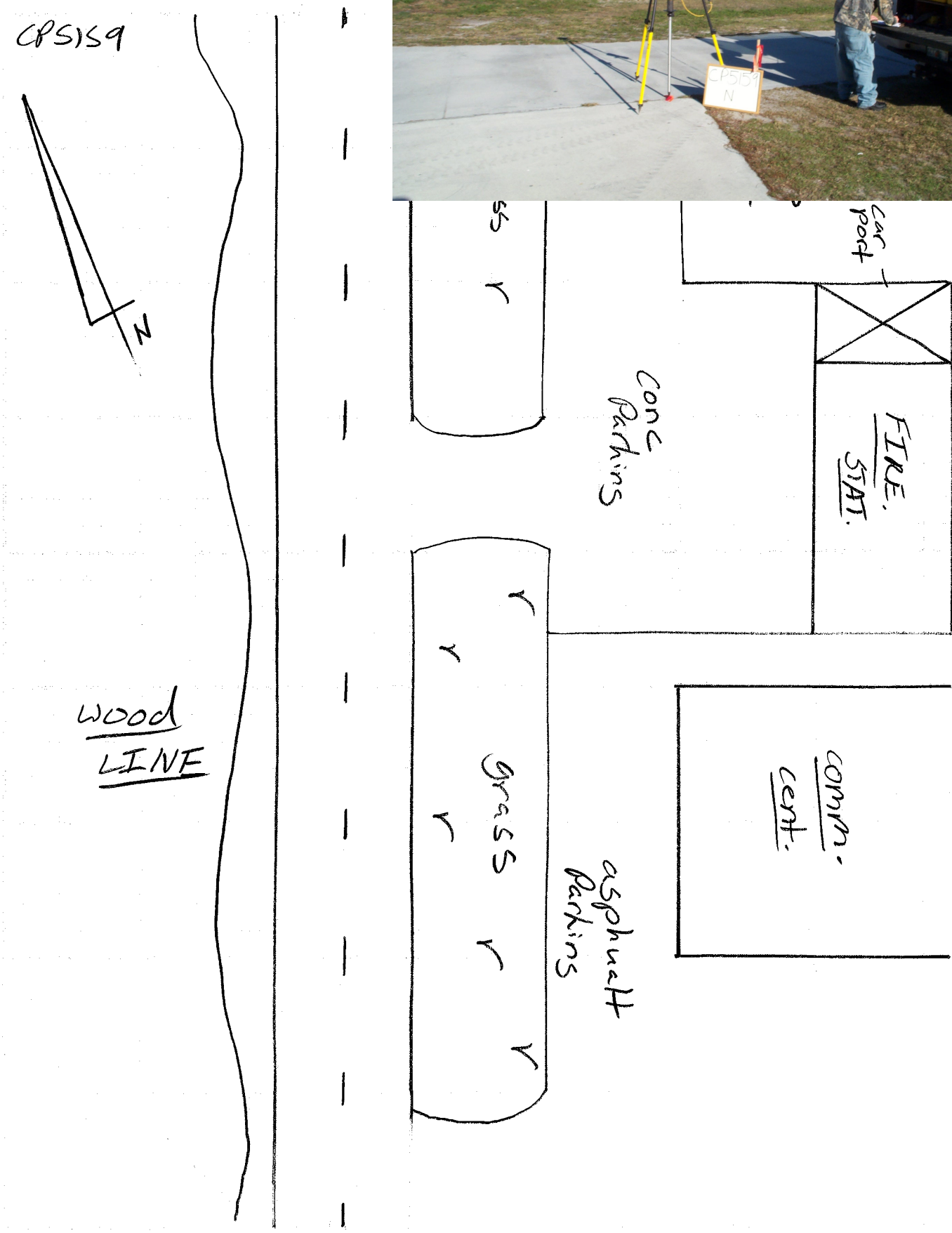

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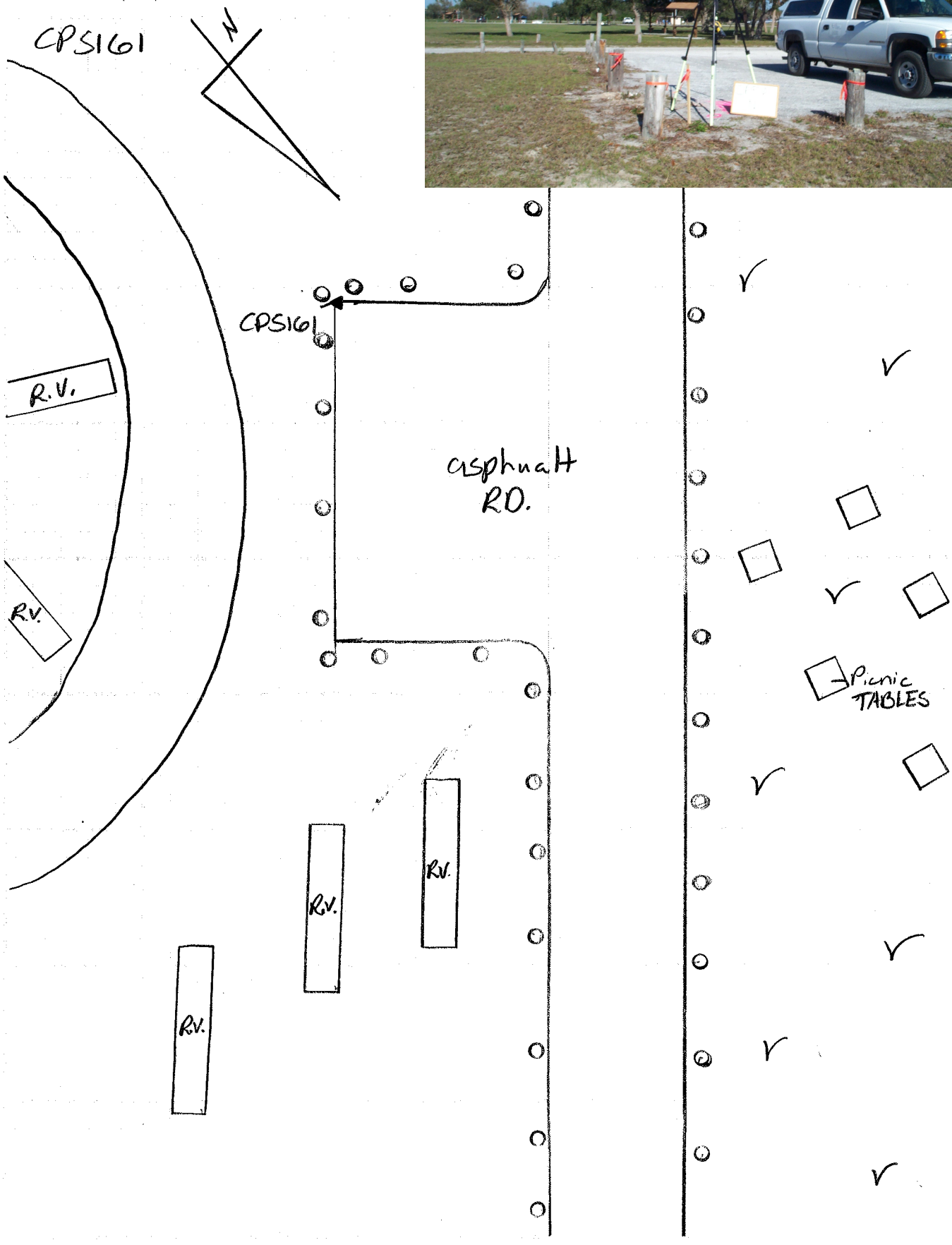
PRC

SUB

BY _





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NICEVILLE, FLORIDA 32578
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PROJECT _____ SHEET ____ OF ____

SUBJECT _____ DATE _____

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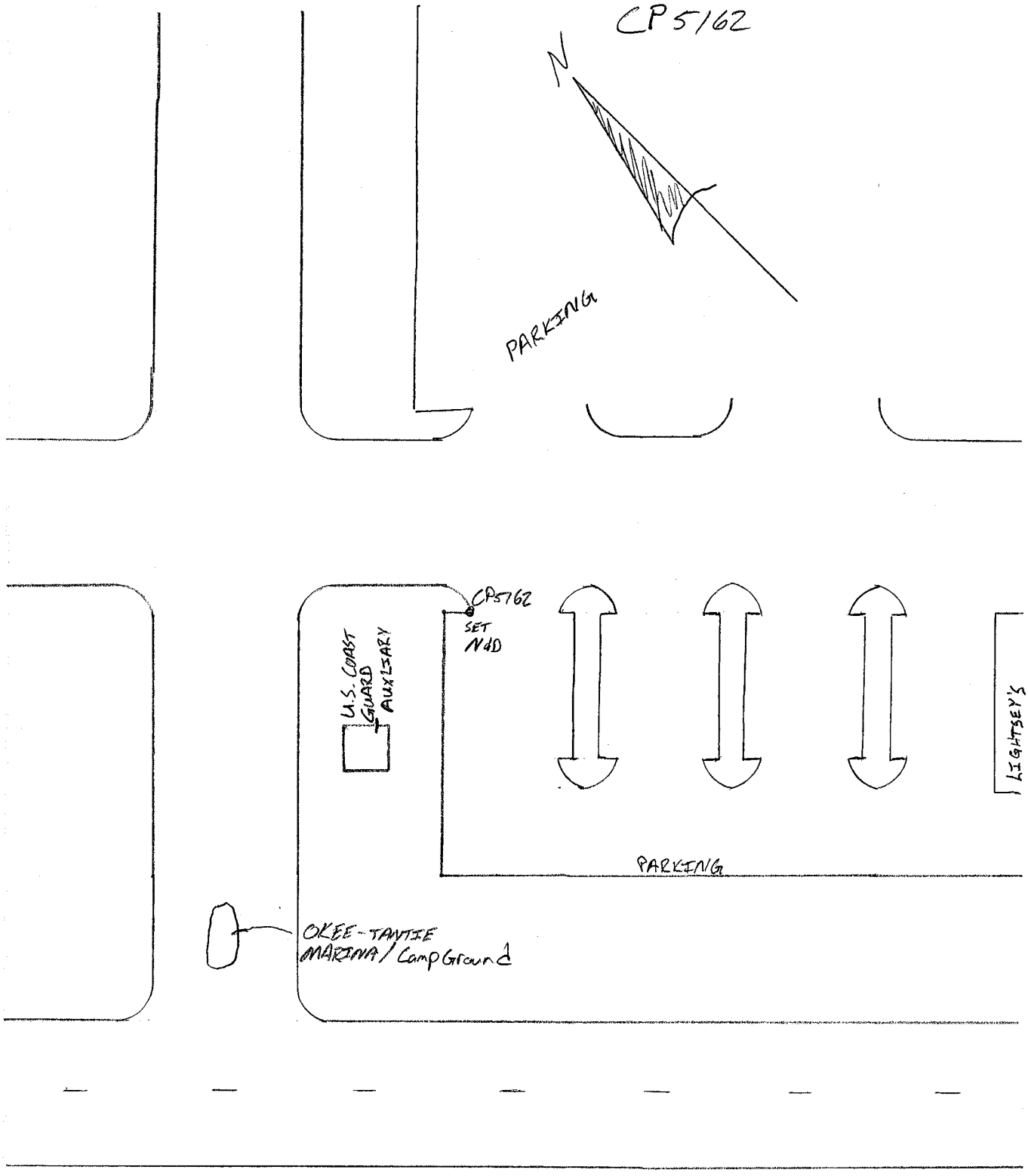

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PROJECT _____ SHEET _____ OF _____

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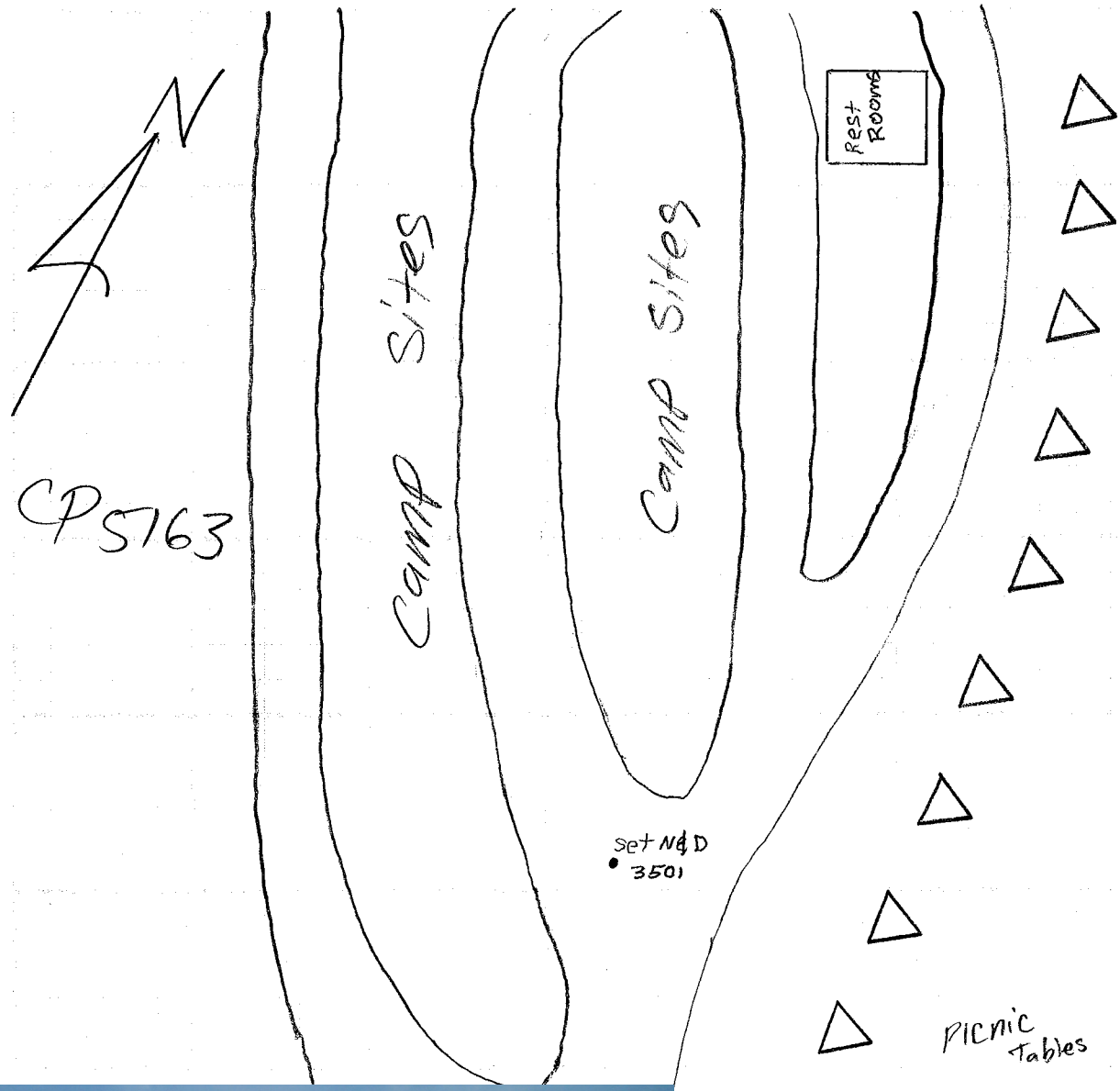



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BY _____ JOB NO. _____

CP5164



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SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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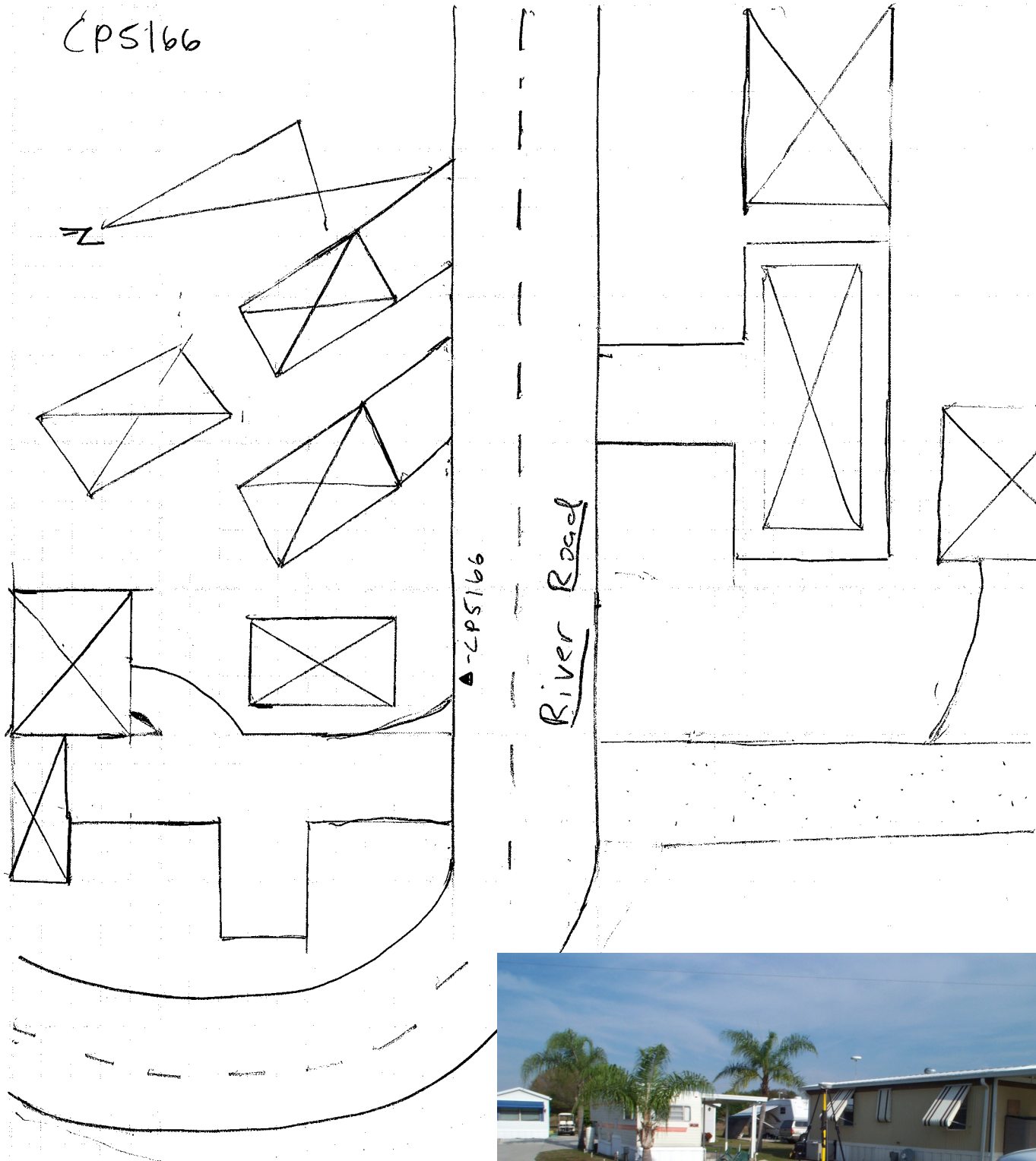
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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NICEVILLE, FLORIDA 32578

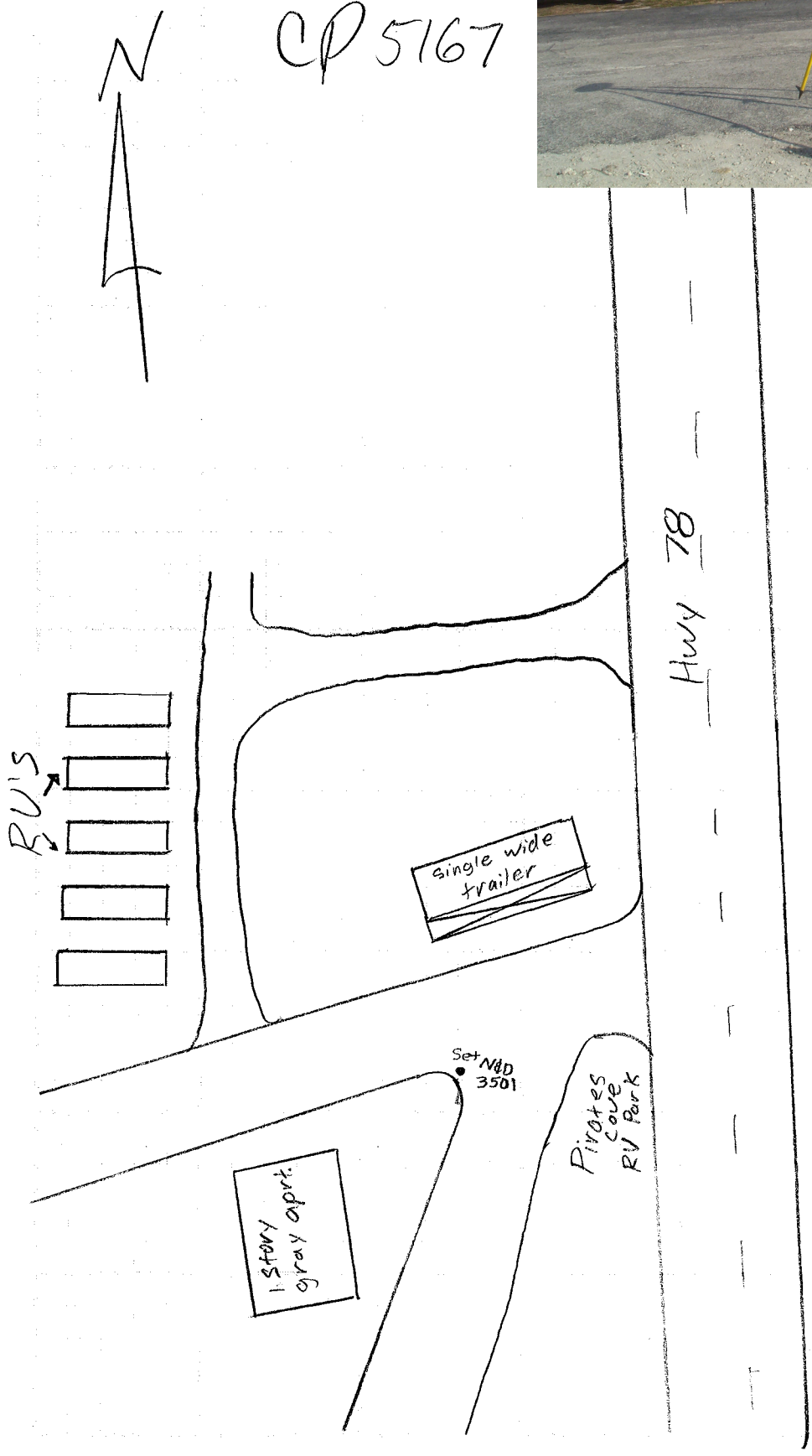
(850) 678-5141

PRC

SUB

BY





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PRO

SUB

BY



CPS168

R.V.

R.V.

R.V.

R.V.

trailor

R.V.

R.V.

CPS168

R.V.

R.V.

R.V.

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PROJEC

SUBJEC

BY



CPS169

trailer

grass

N

trailer

canal

grass

grass

office

grass

Porch

conc. P.T.

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(850) 678-5141

PROJECT ___

SUBJECT ___

BY _____



CP5170 GRASS

CANAL

Boat Ramp

CP5170

N

GRASS

Brush

GRASS

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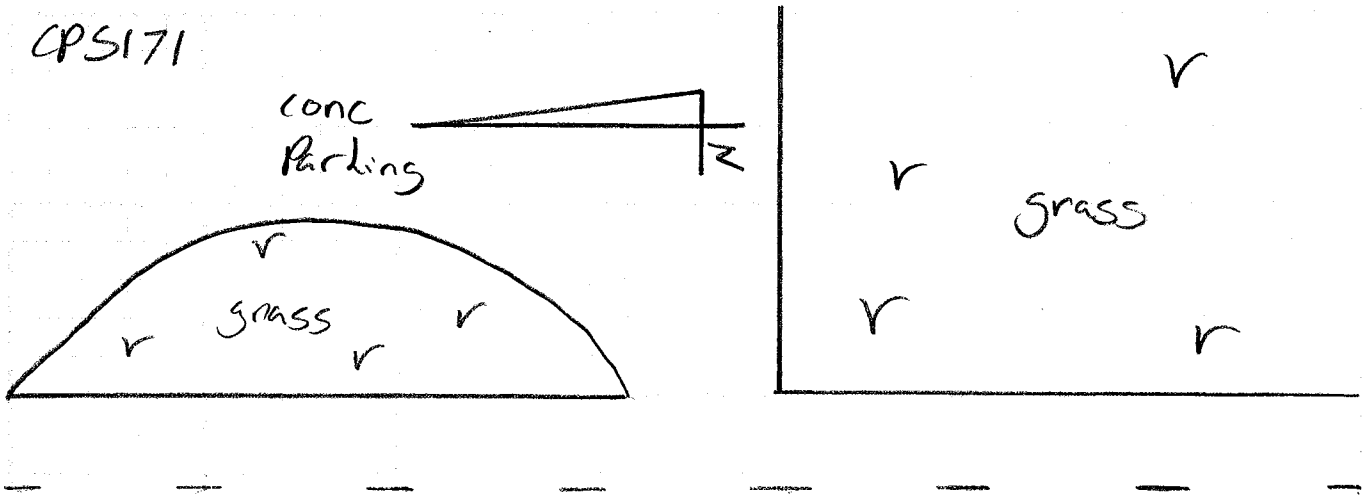
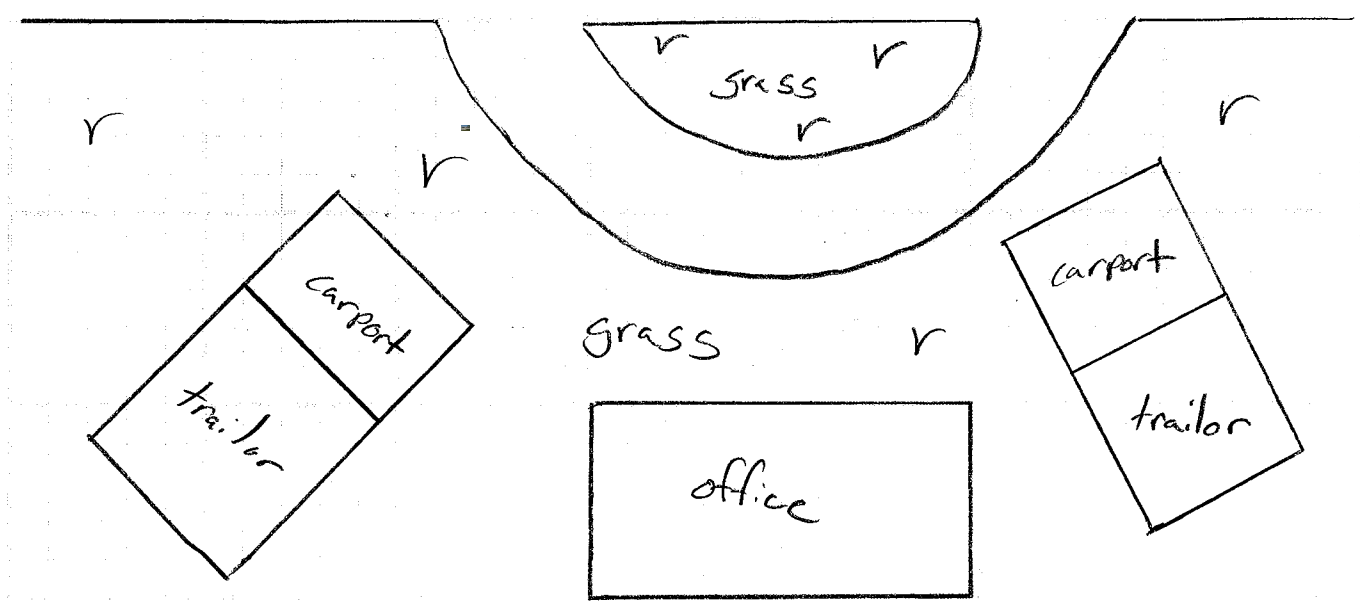
SUBJECT _____ DATE _____

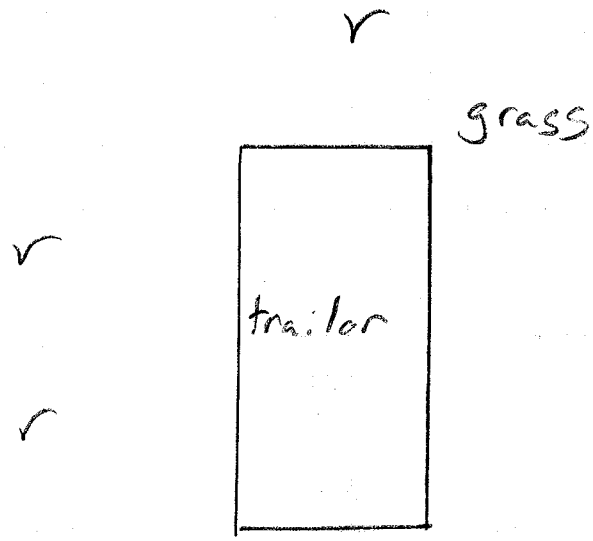
BY _____ JOB NO. _____

CPS171









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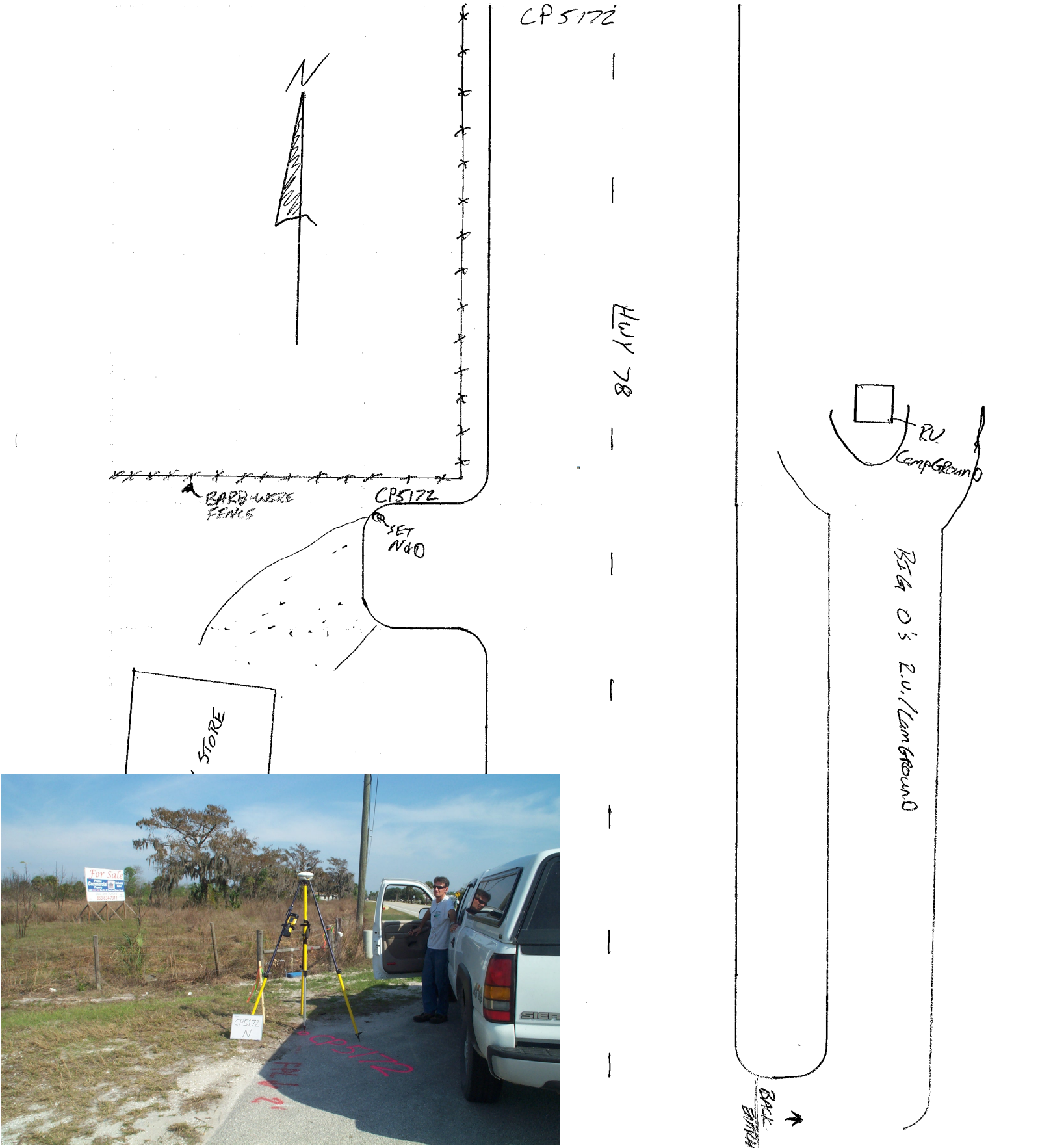

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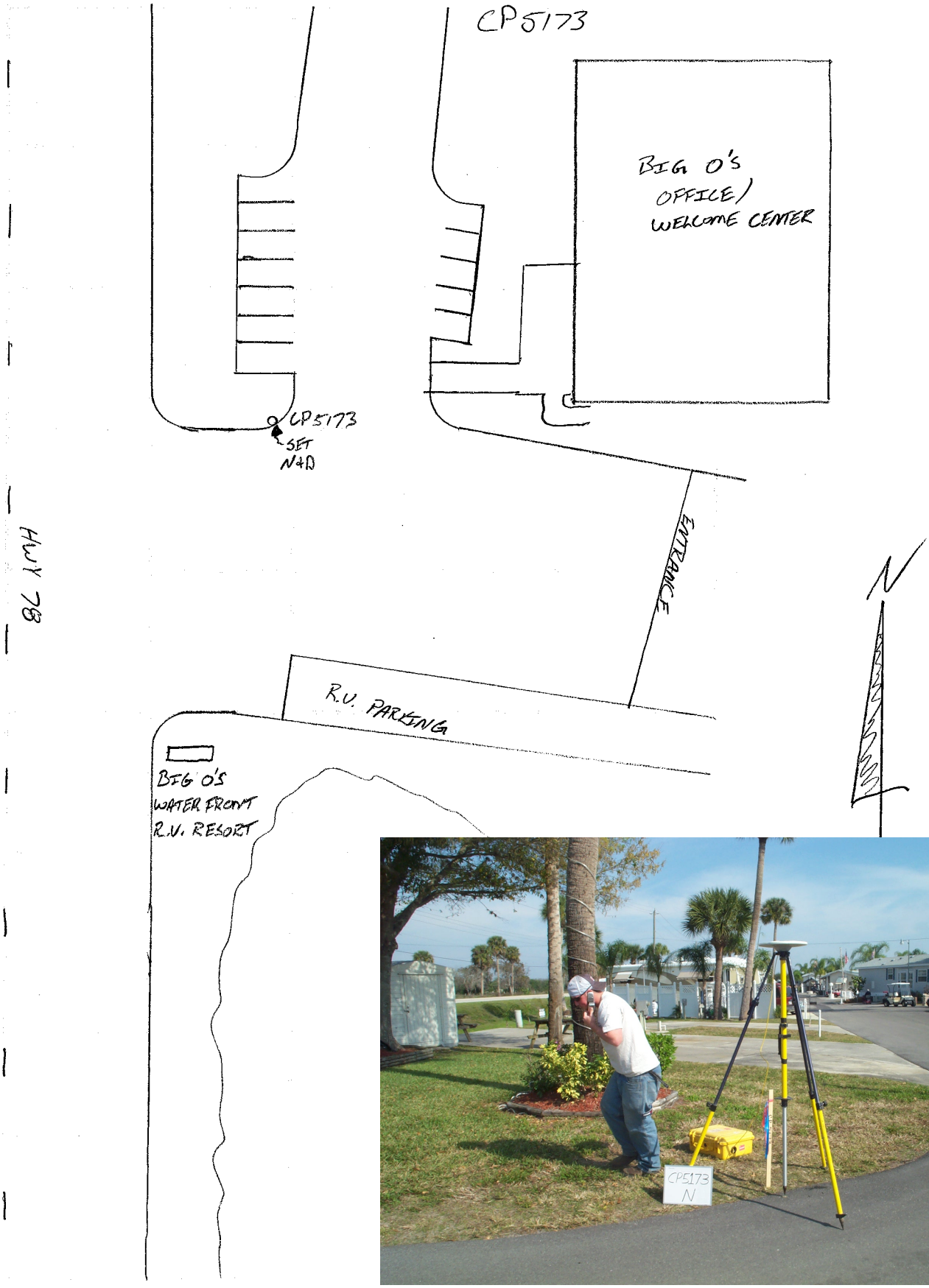

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PROJECT _____ SHEET _____ OF _____

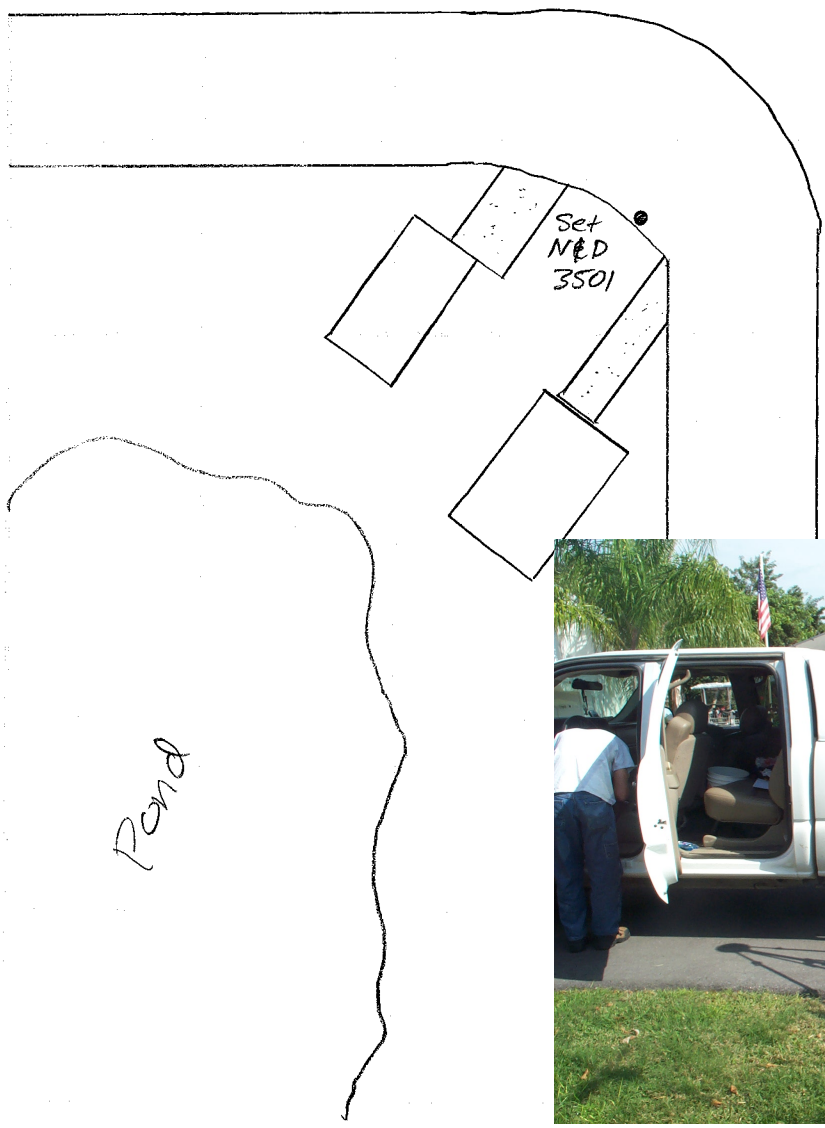
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5174

N

N. E. corner of Big O's RV Park.





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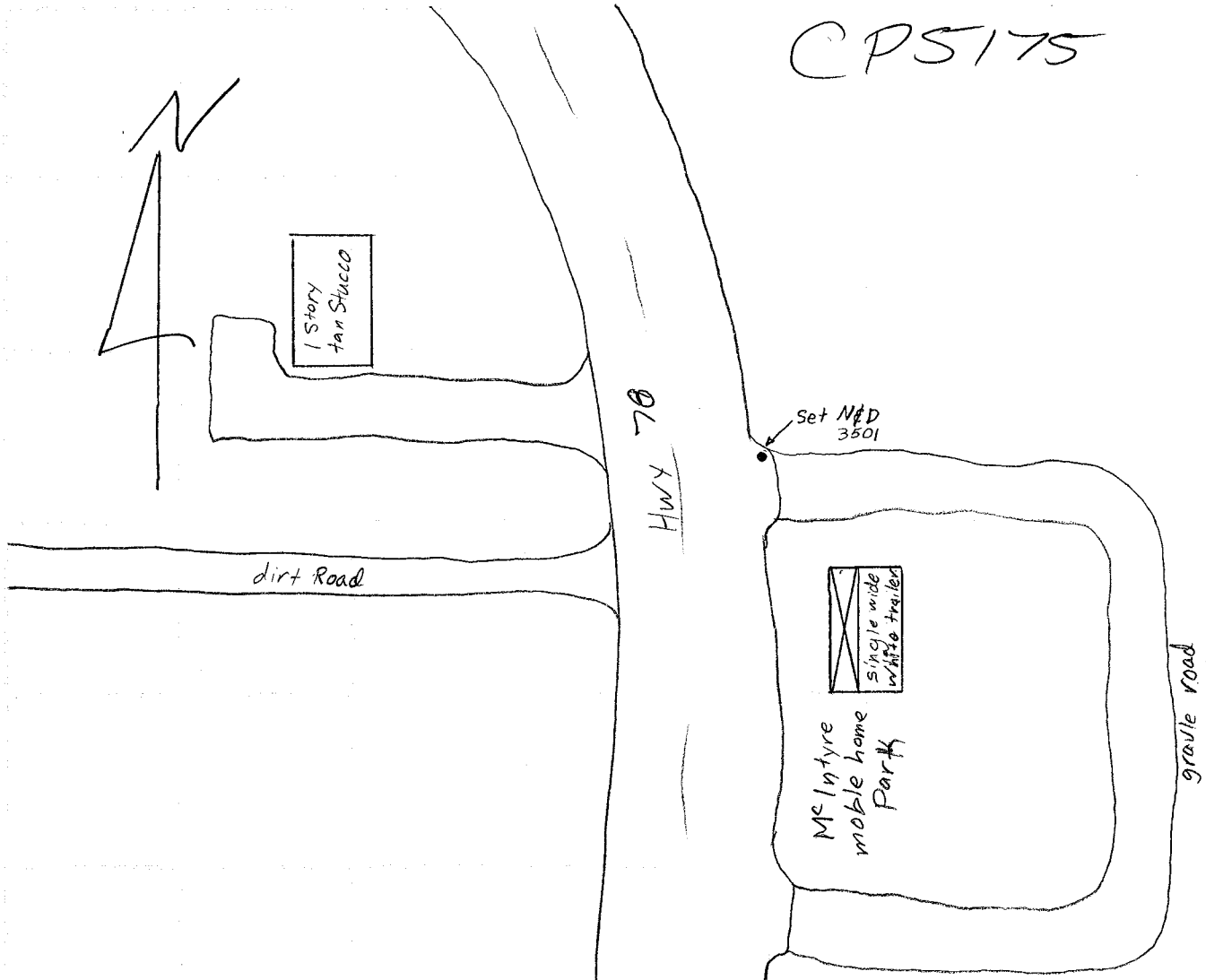
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5175





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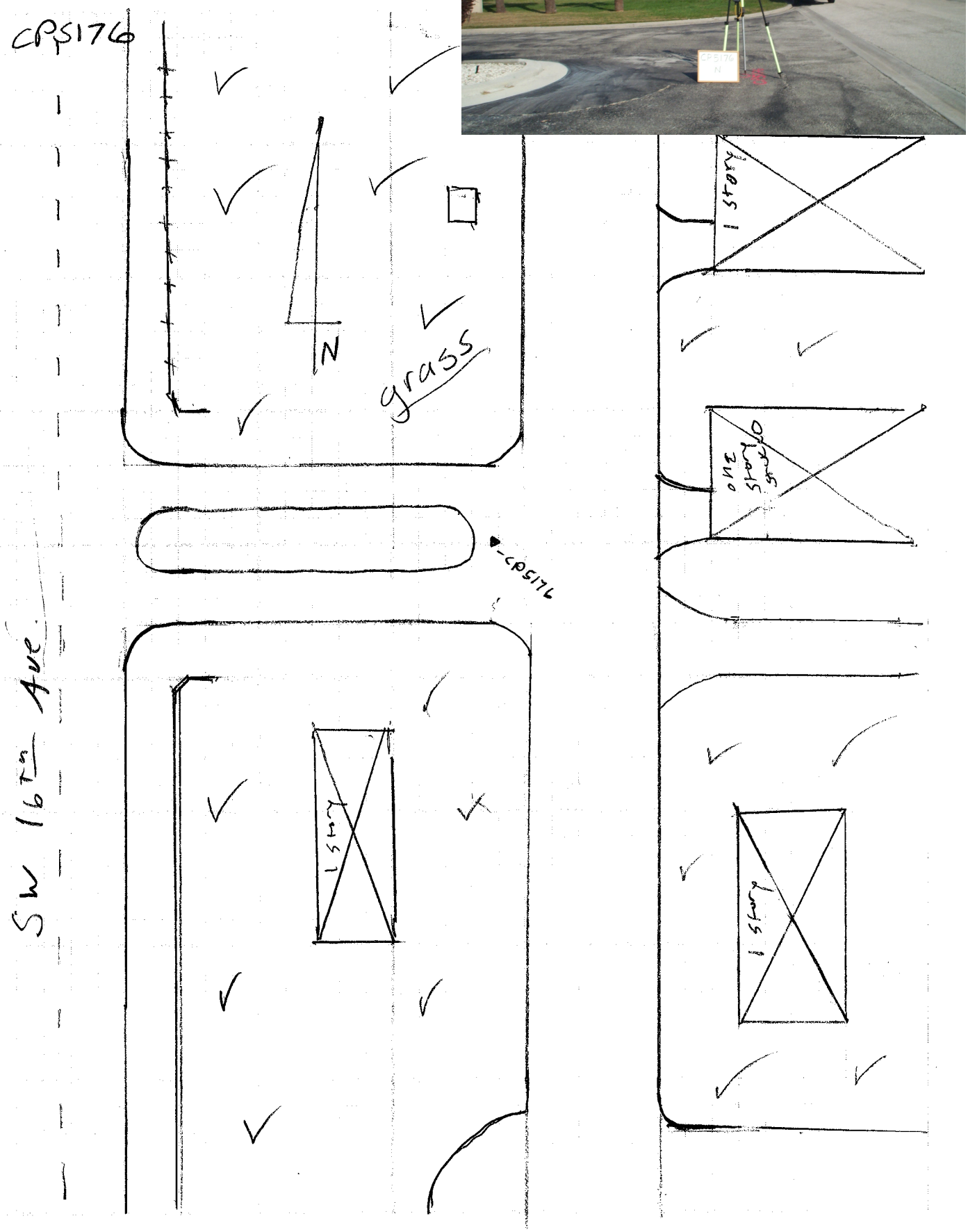
PROJECT _____

SUBJECT _____

BY _____





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ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

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SUBJECT _____

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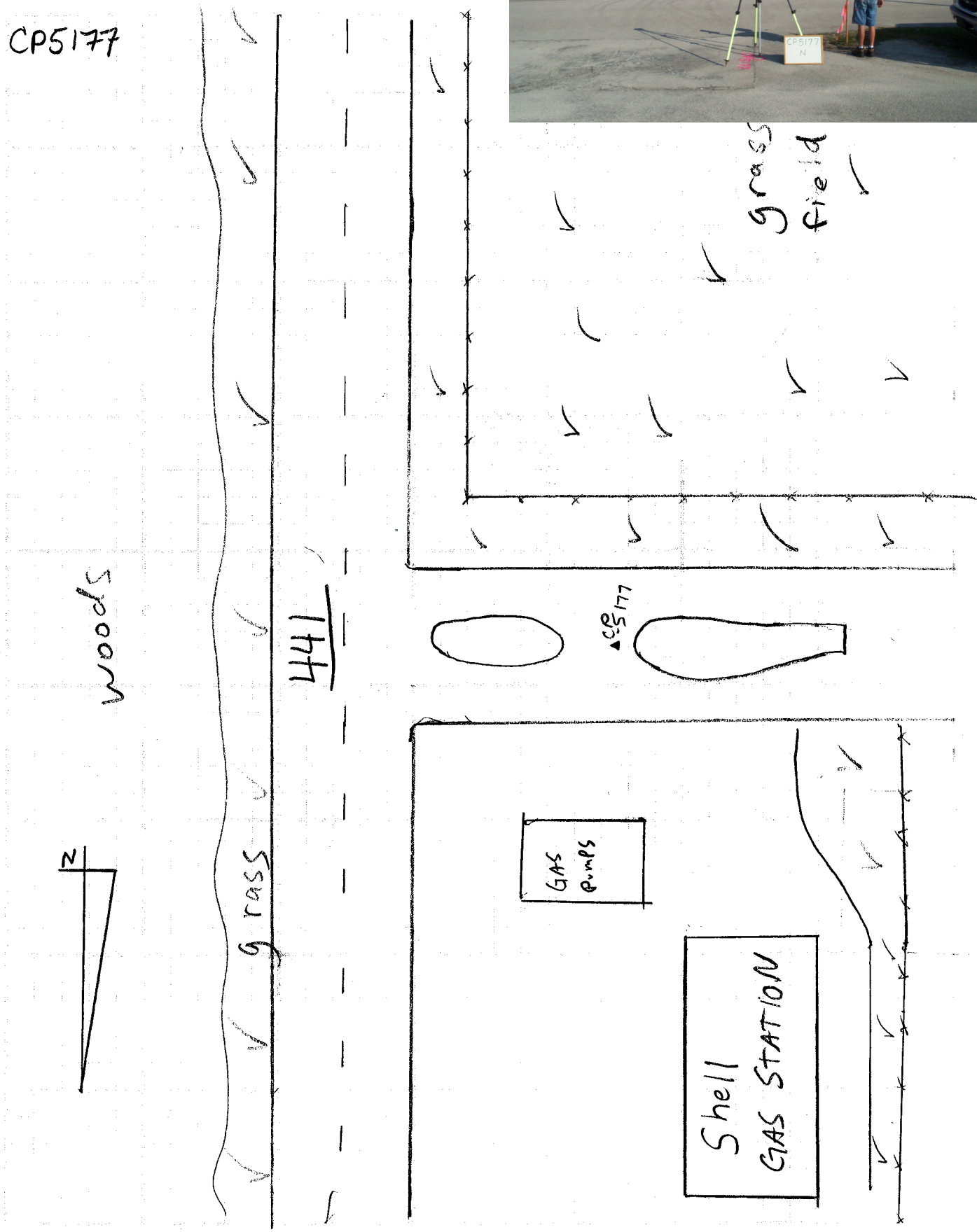

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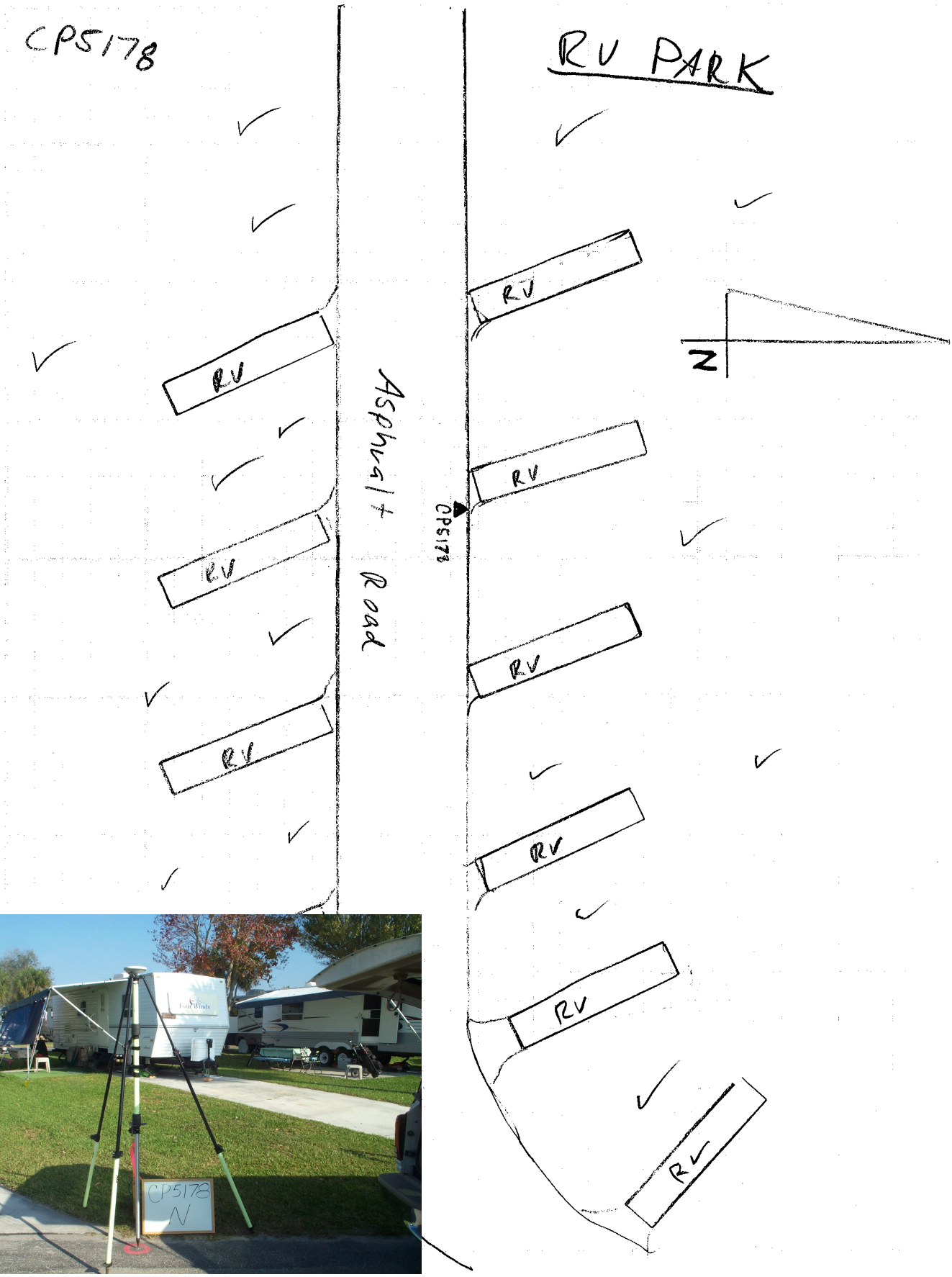

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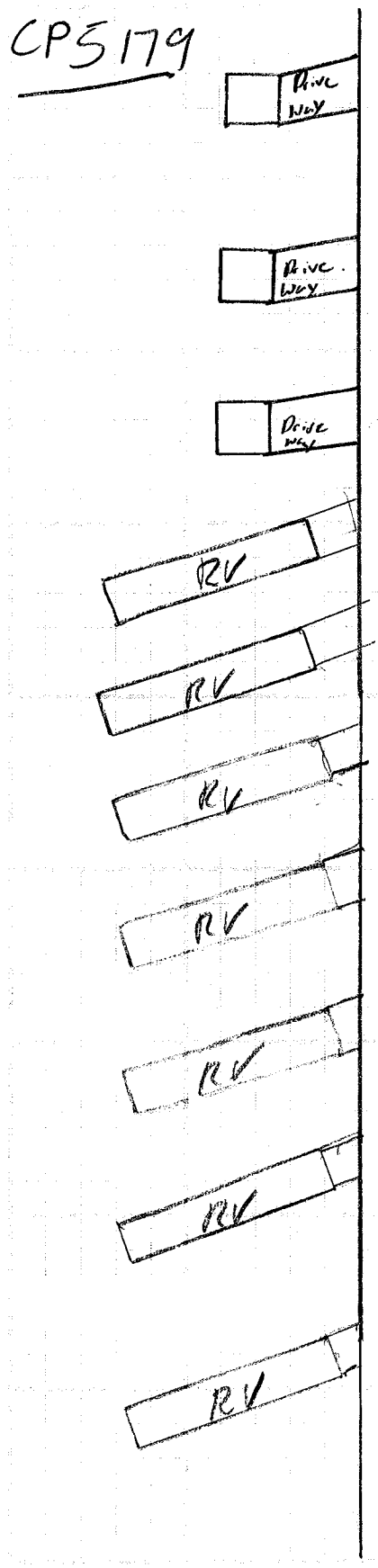
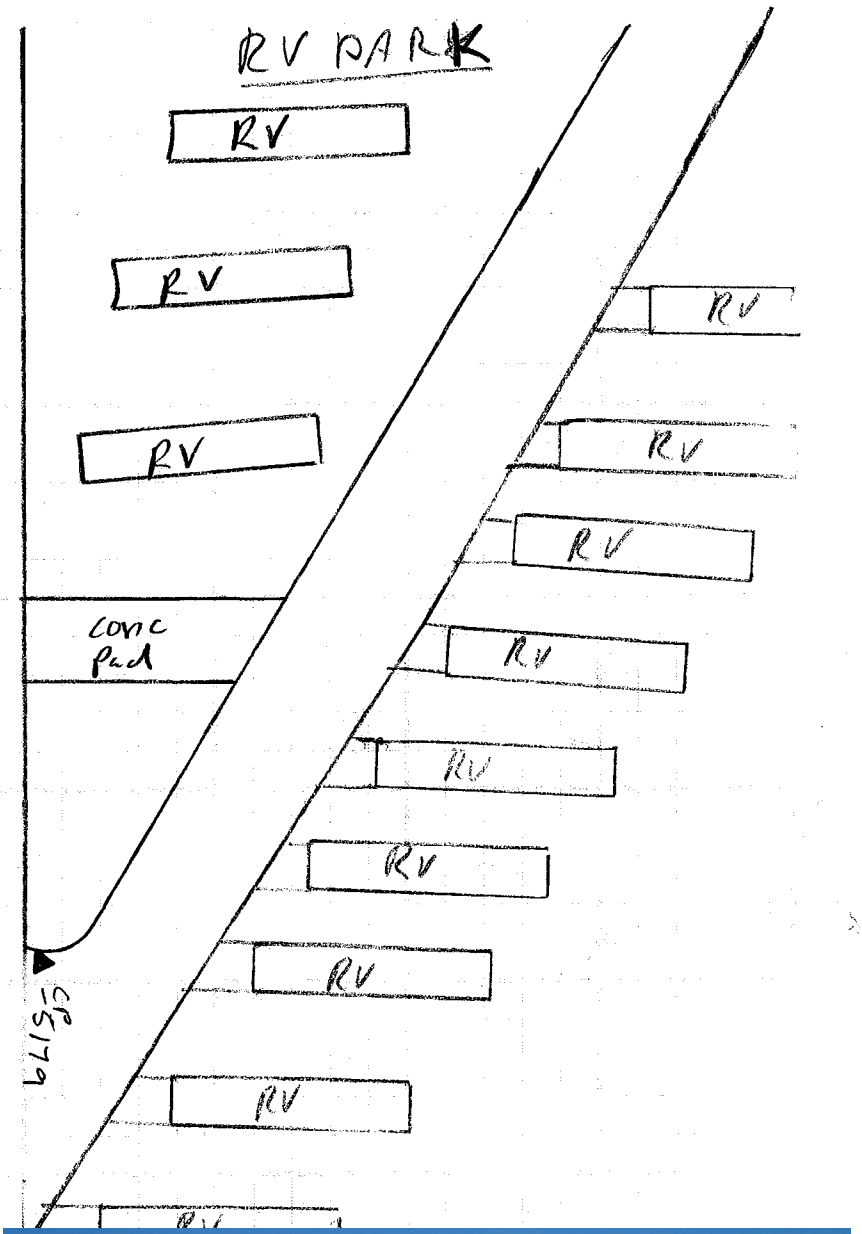
CPS179







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P
S
B



CP5180

grass

asphalt Parking

Pool

General Store

CP5180

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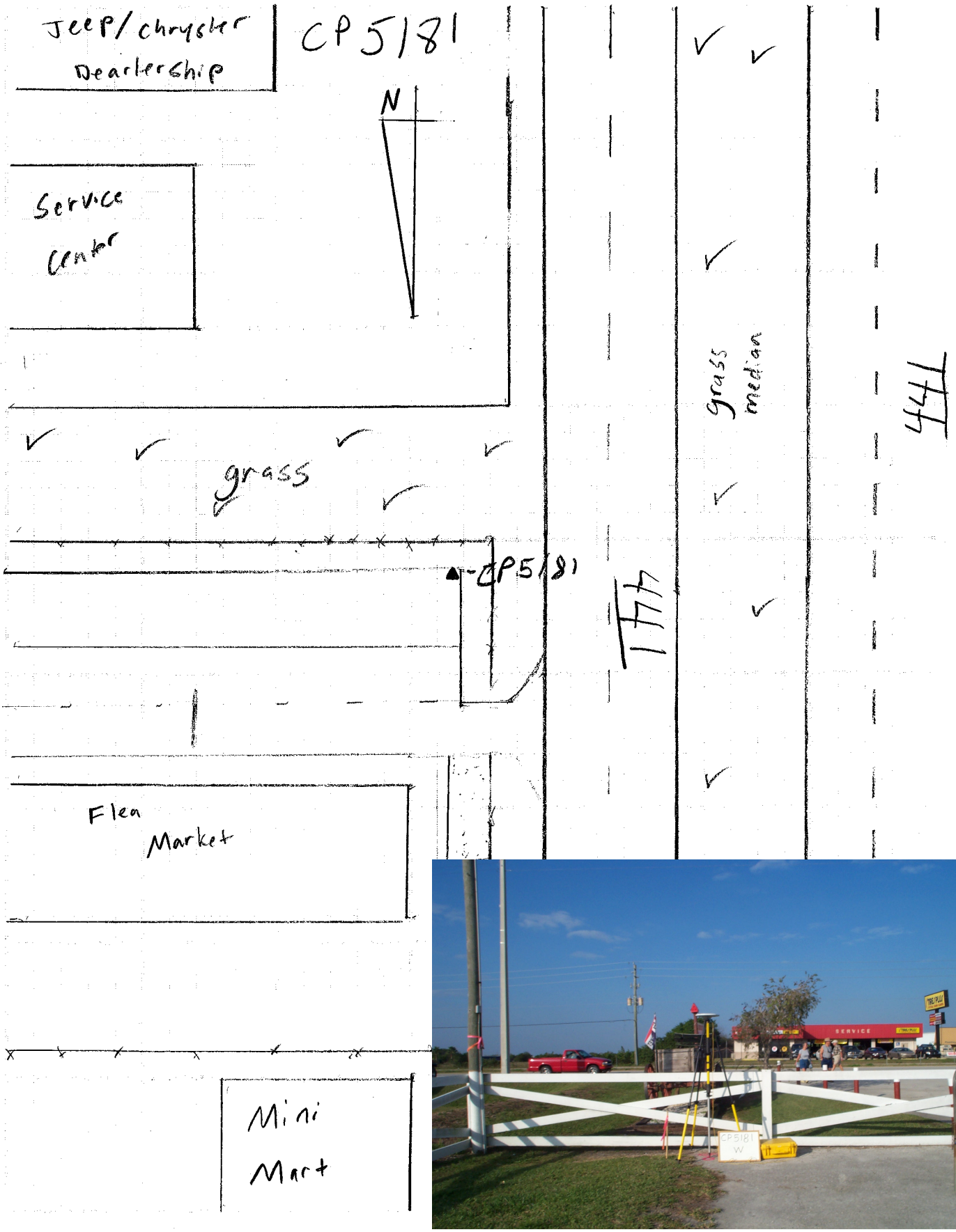
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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NICEVILLE, FLORIDA 32578

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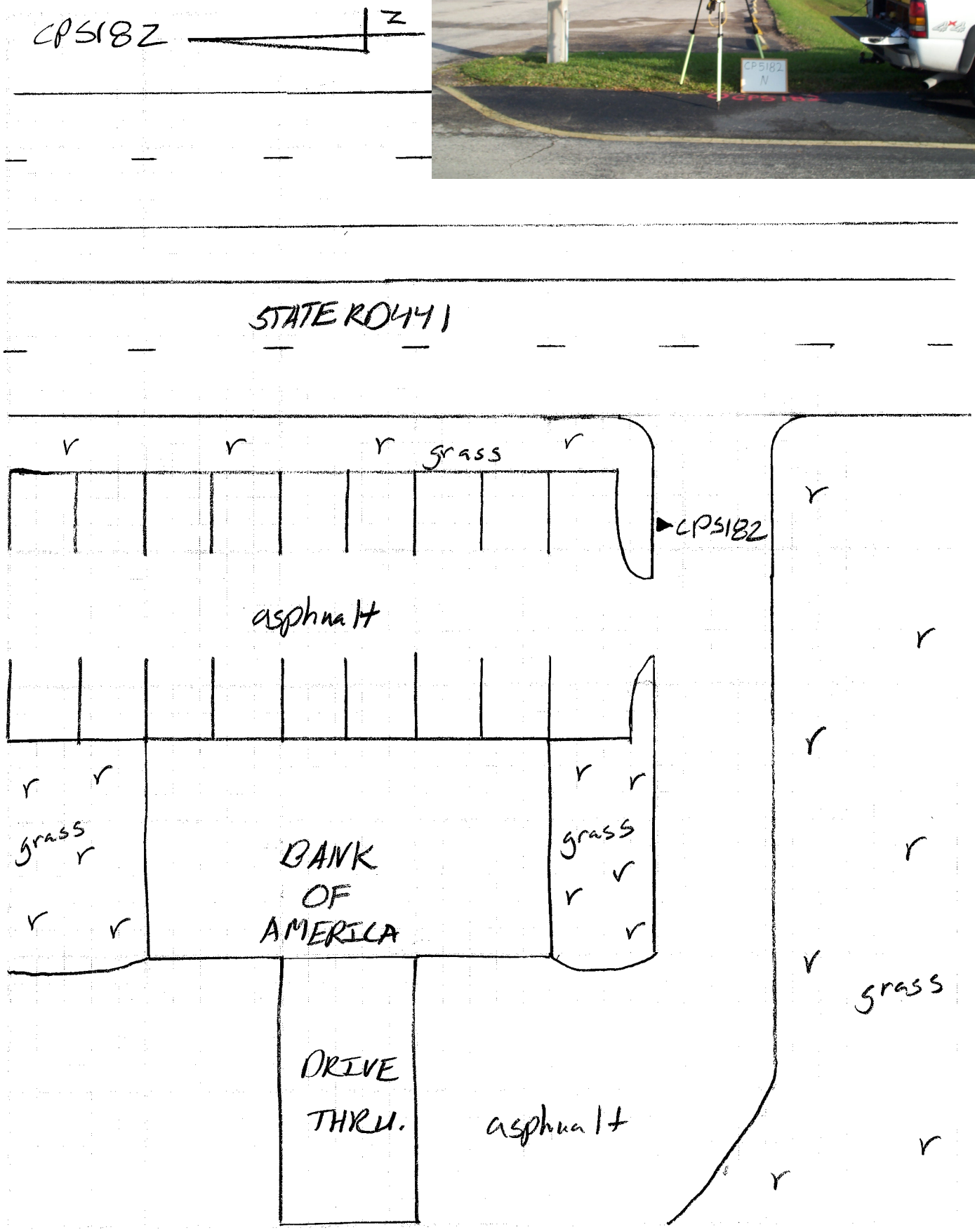
PROJ

SUBJ

BY





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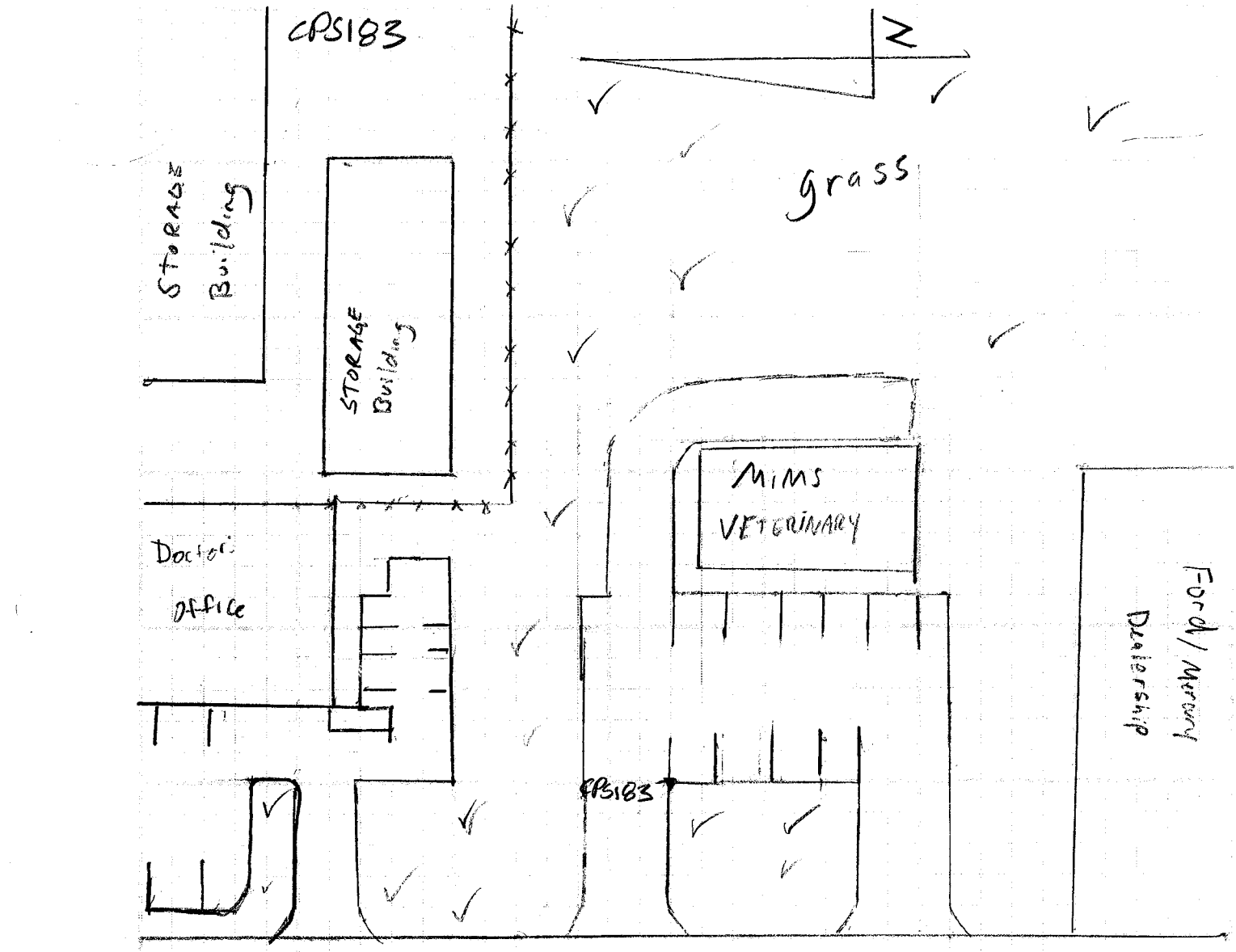



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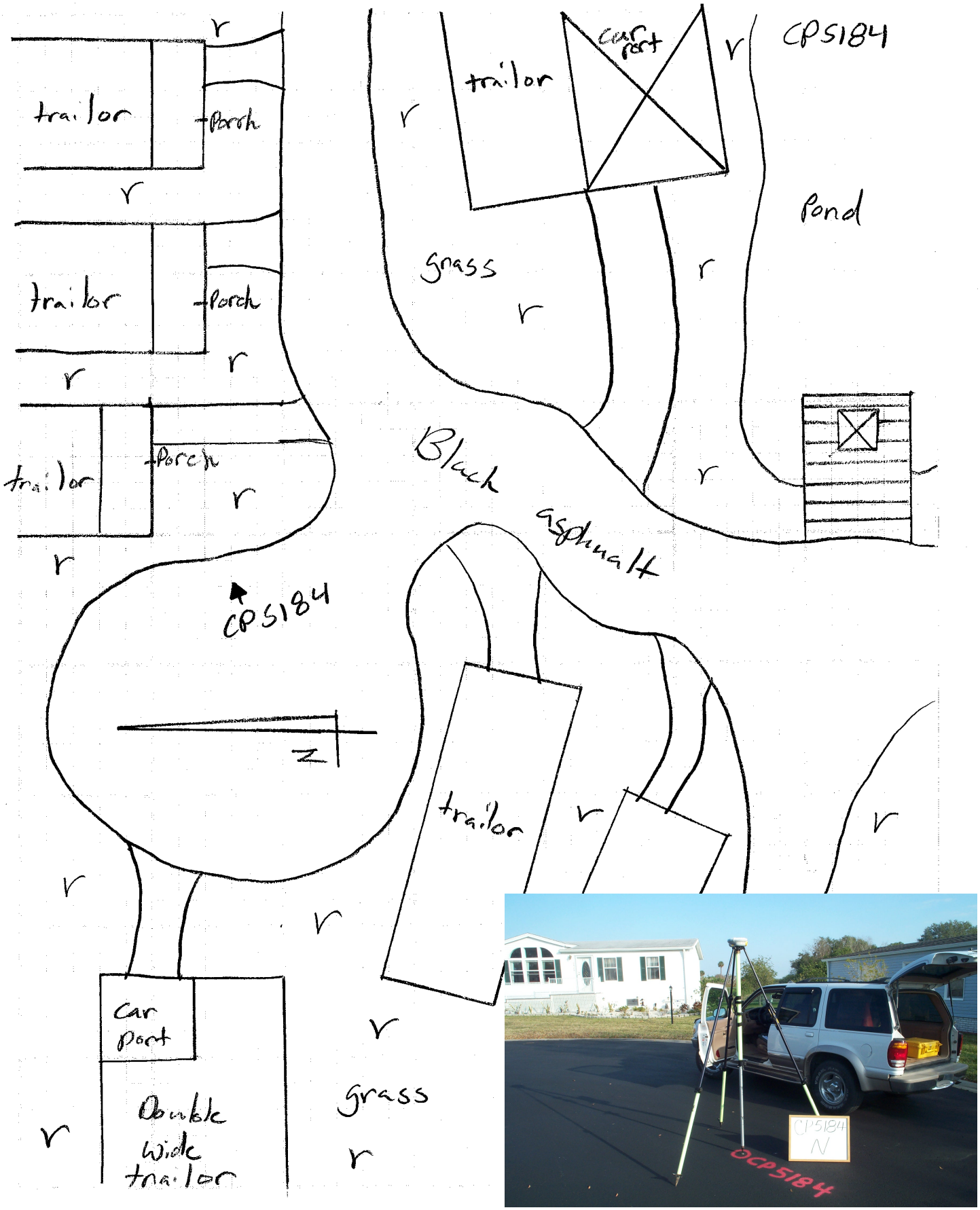

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PR

SU

BY



CP5185

MIDDLE SCHOOL

grass

grass

CP5185

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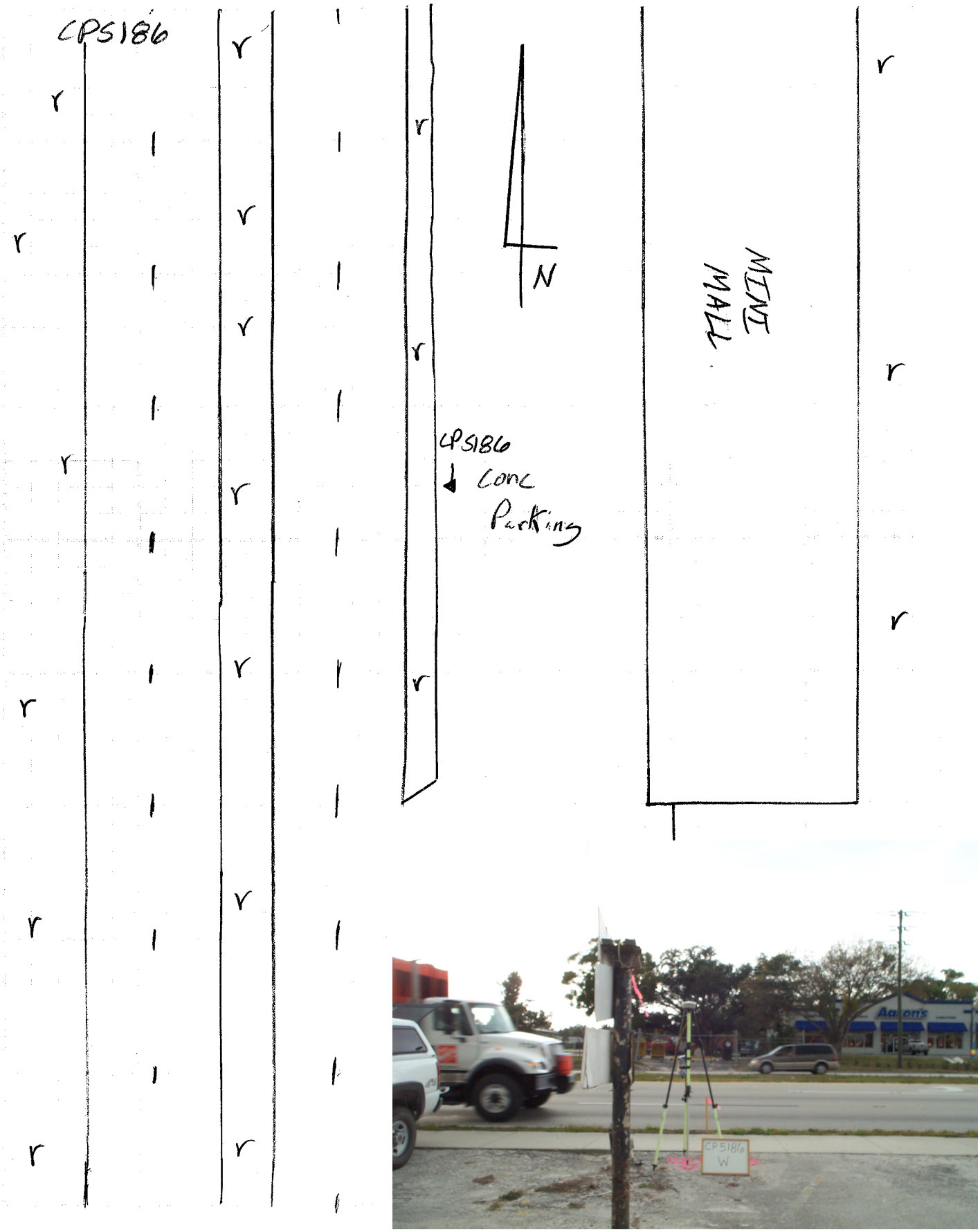

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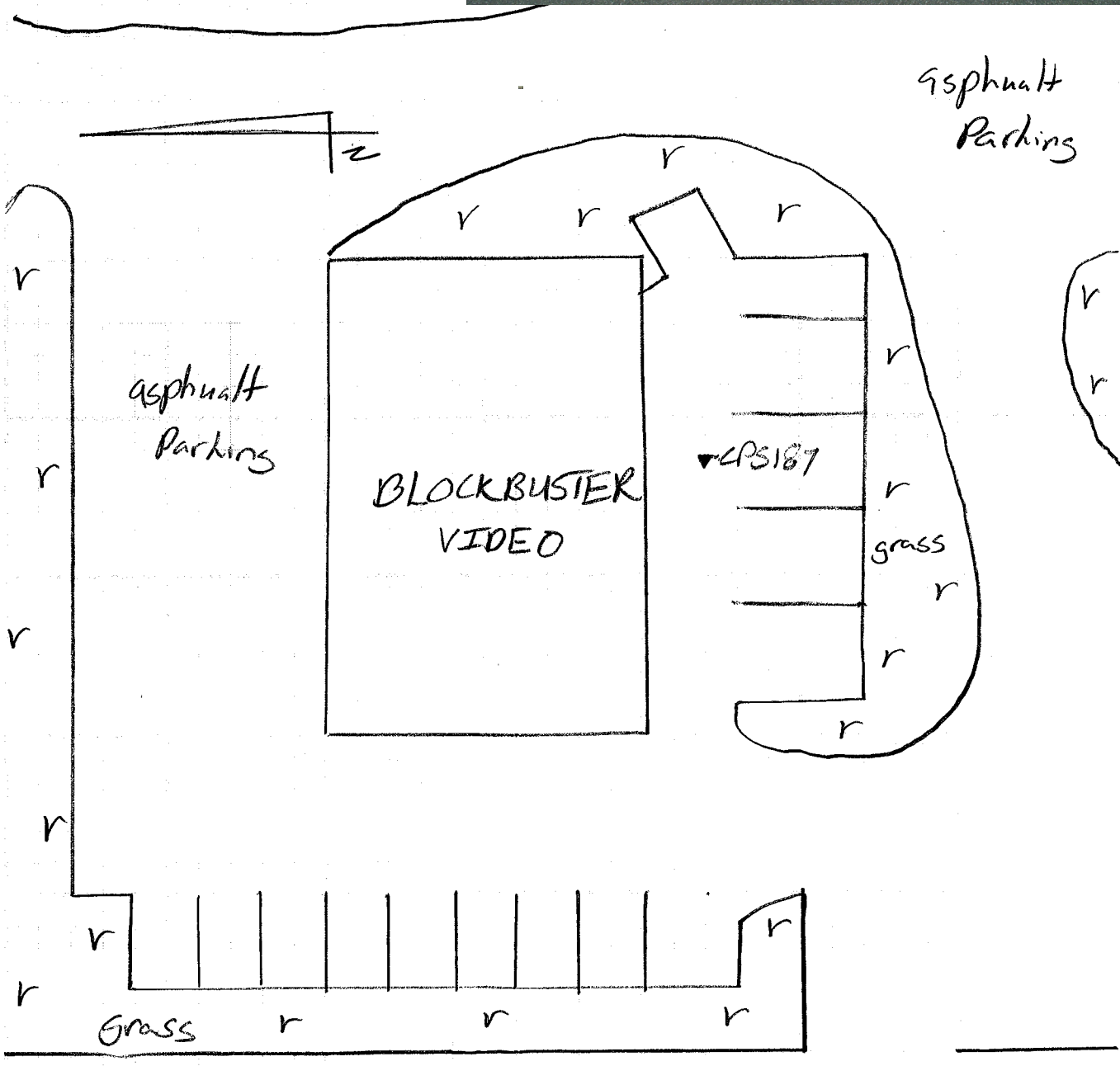
P
S
B



CPS187

Wood's



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CP5188



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BY _____ JOB NO. _____



CP5189

N

RIVER SIDE

NATIONAL BANK

grass

grass

grass

MINI MALL

asphalt Parking

office BLDG.

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

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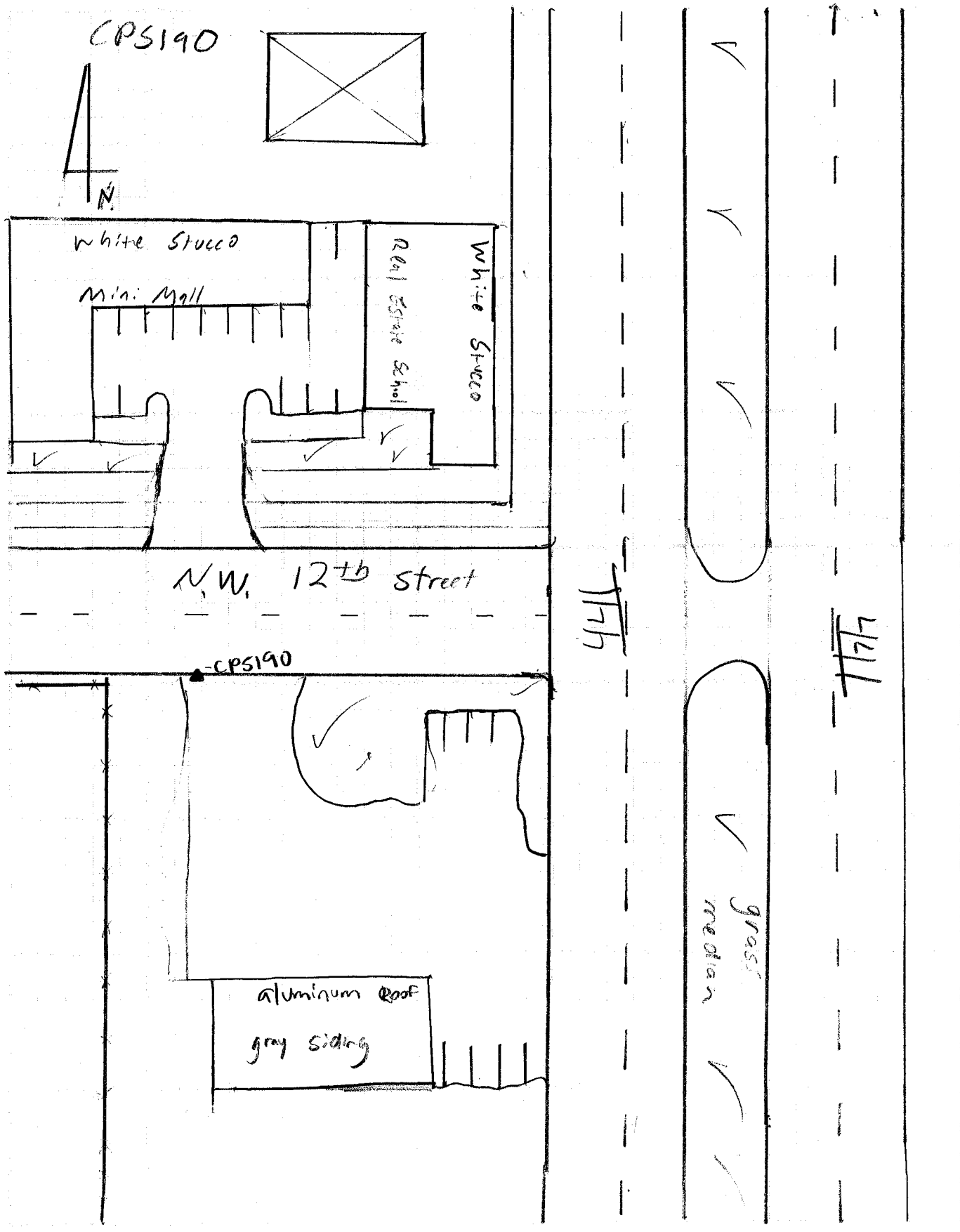

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ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PR

SU

BY



CPS191

Grass

Private Driveway

asphalt Drive

CPS191

Grasss

1 story Brick Green Roof

Pool

Grass

Grass

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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



CP5192

441

441

N

WOODS

GRASS

CP5192

SUNTRUST BANK

MINI MALL

GUSTIN, COTHERN & TUCKER, INC.
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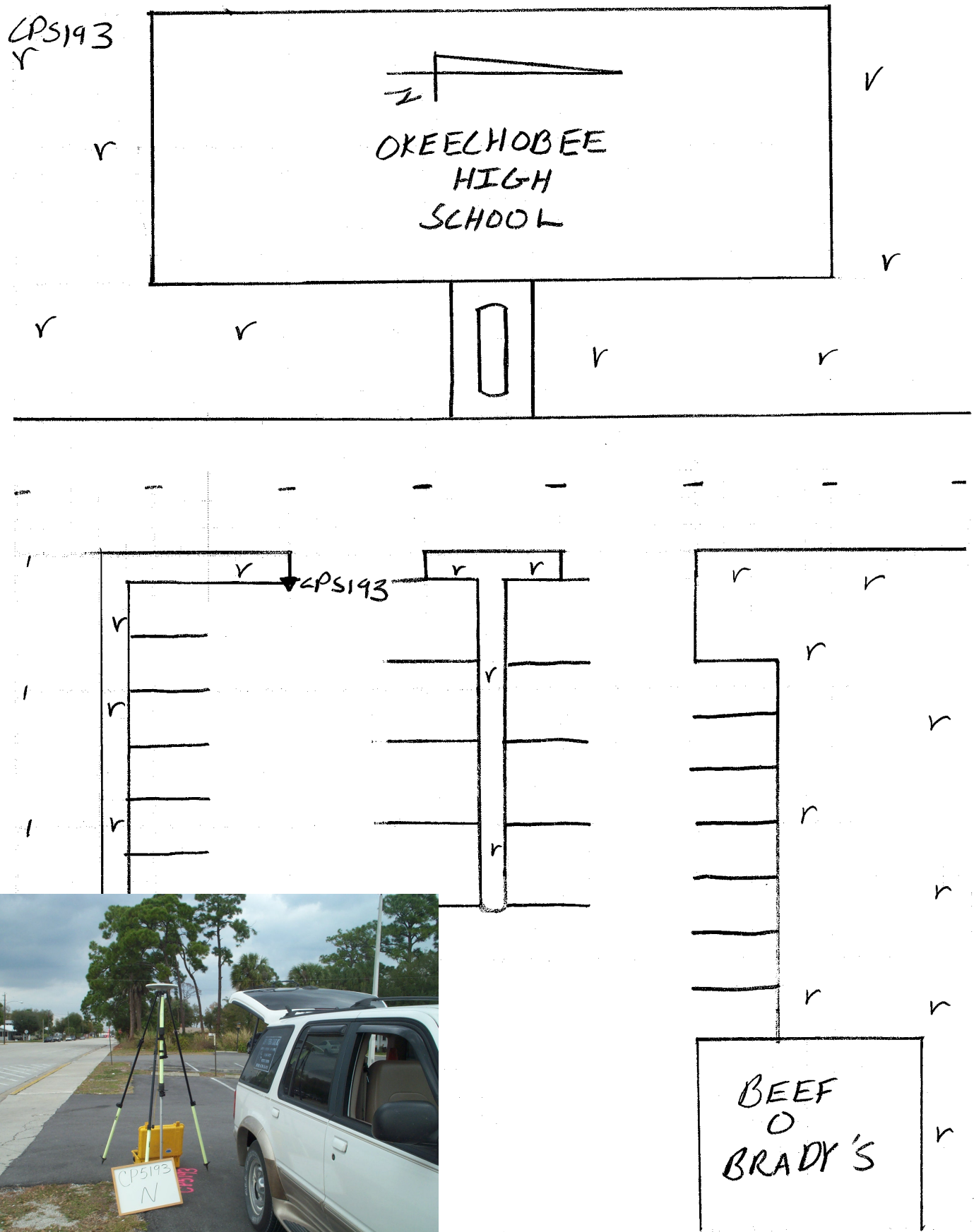

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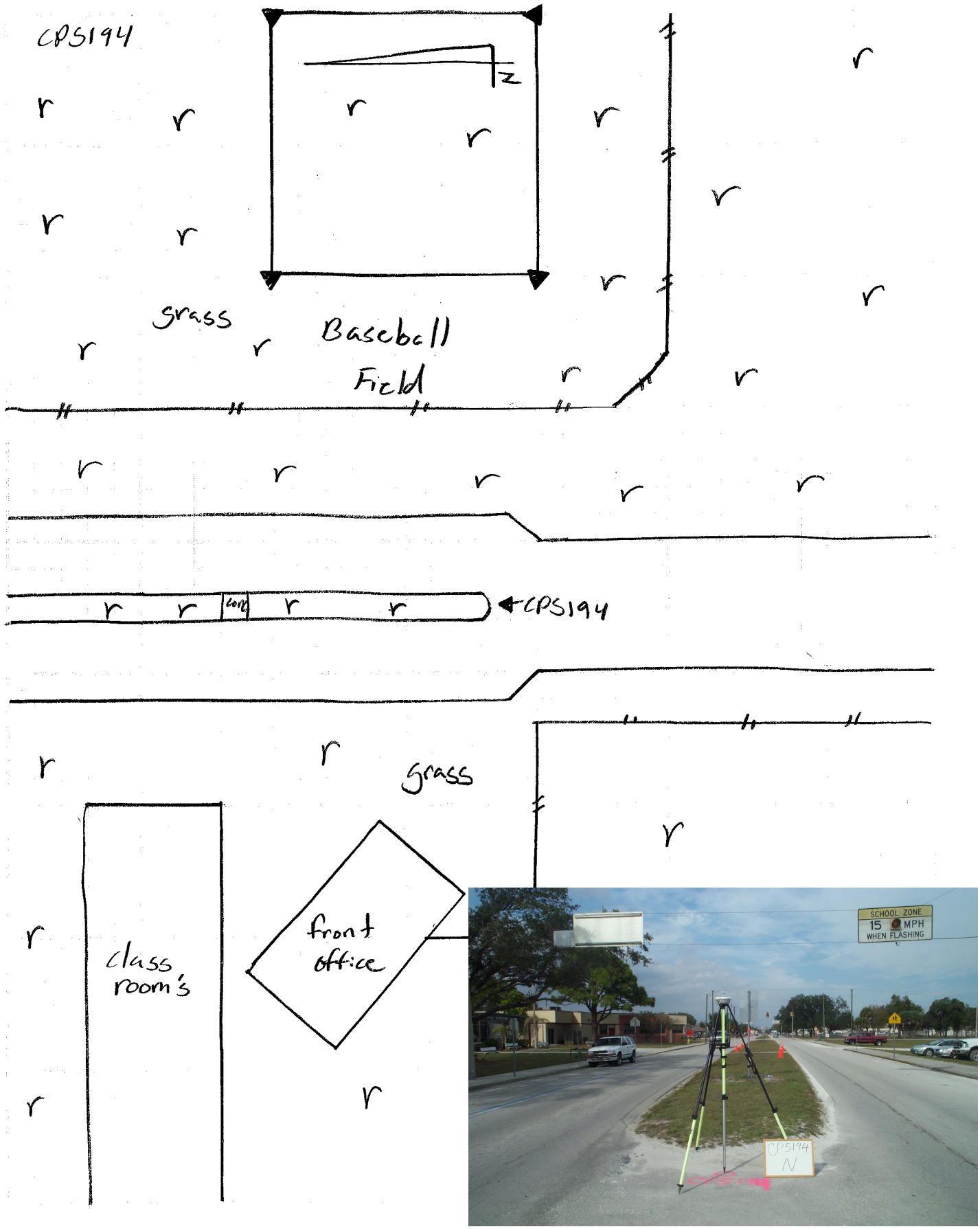

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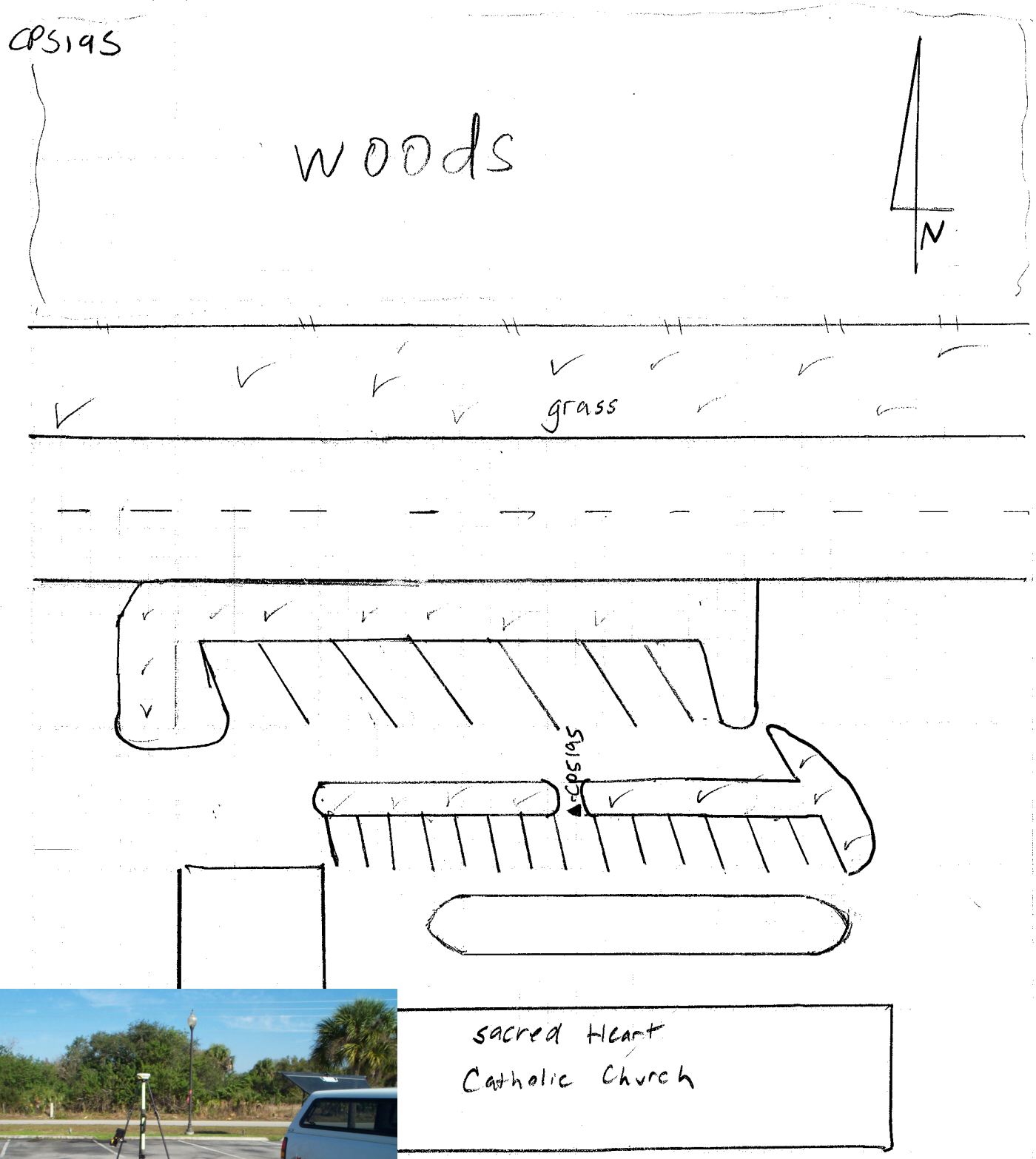



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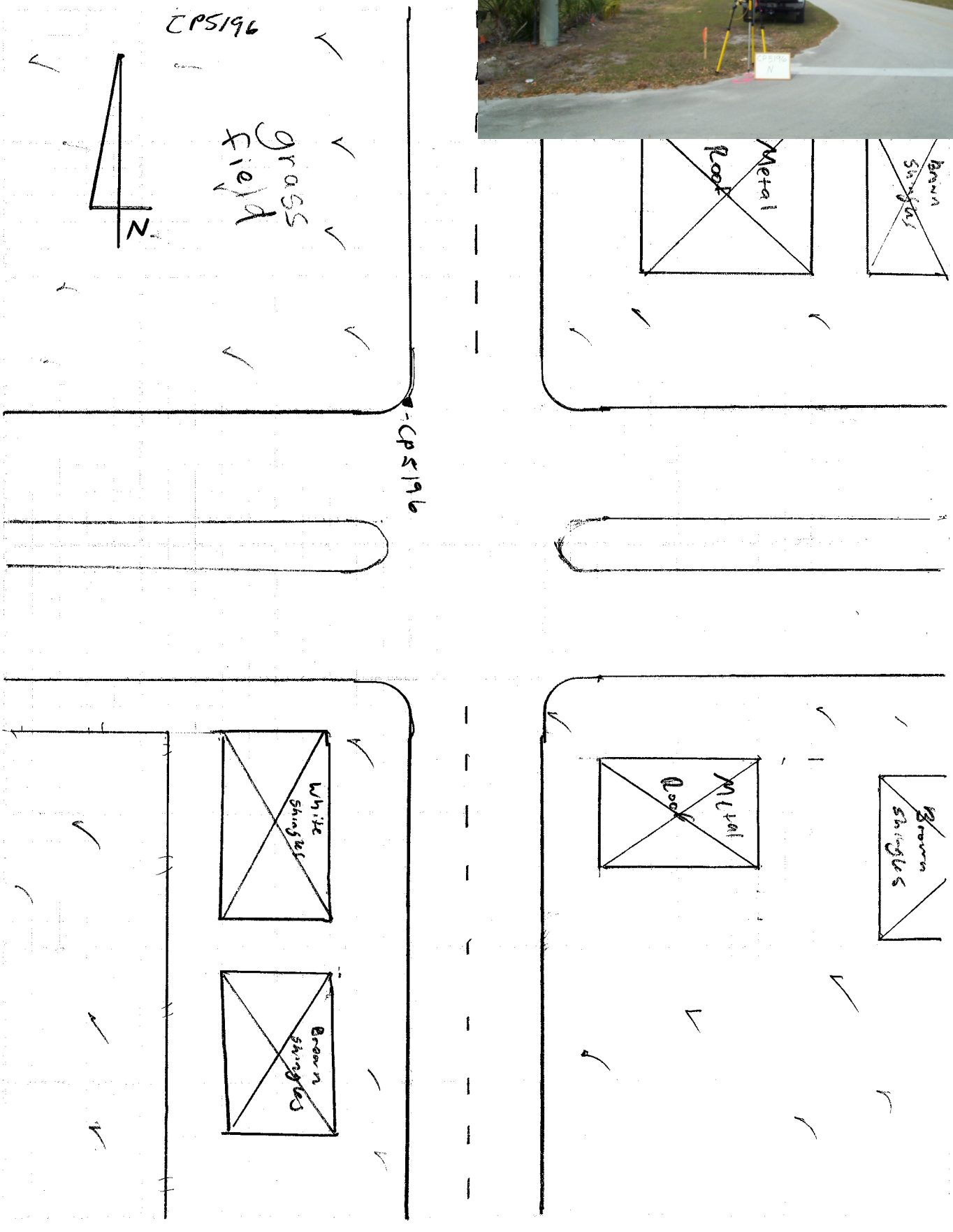
PROJECT _____

SUBJECT _____

BY _____





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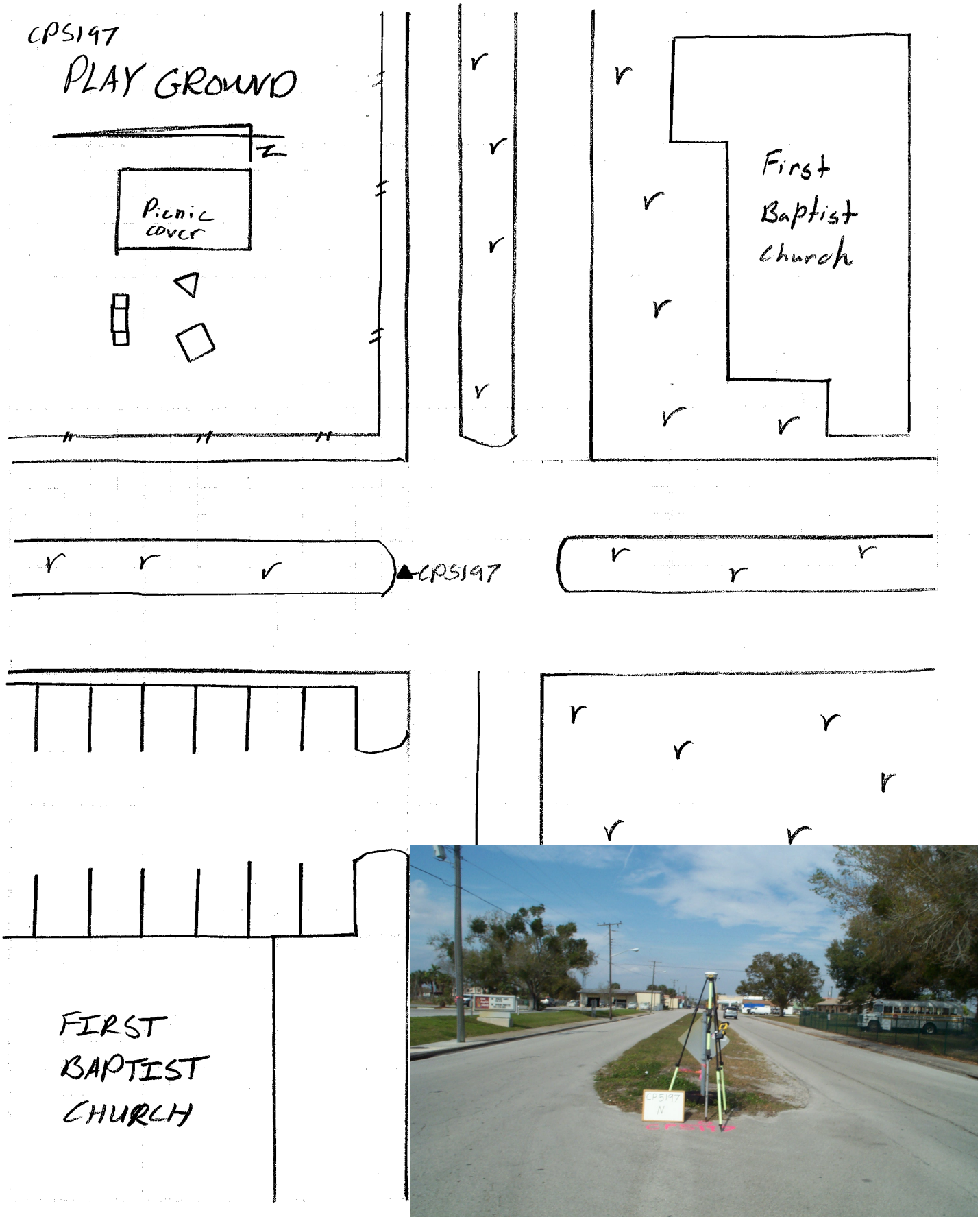

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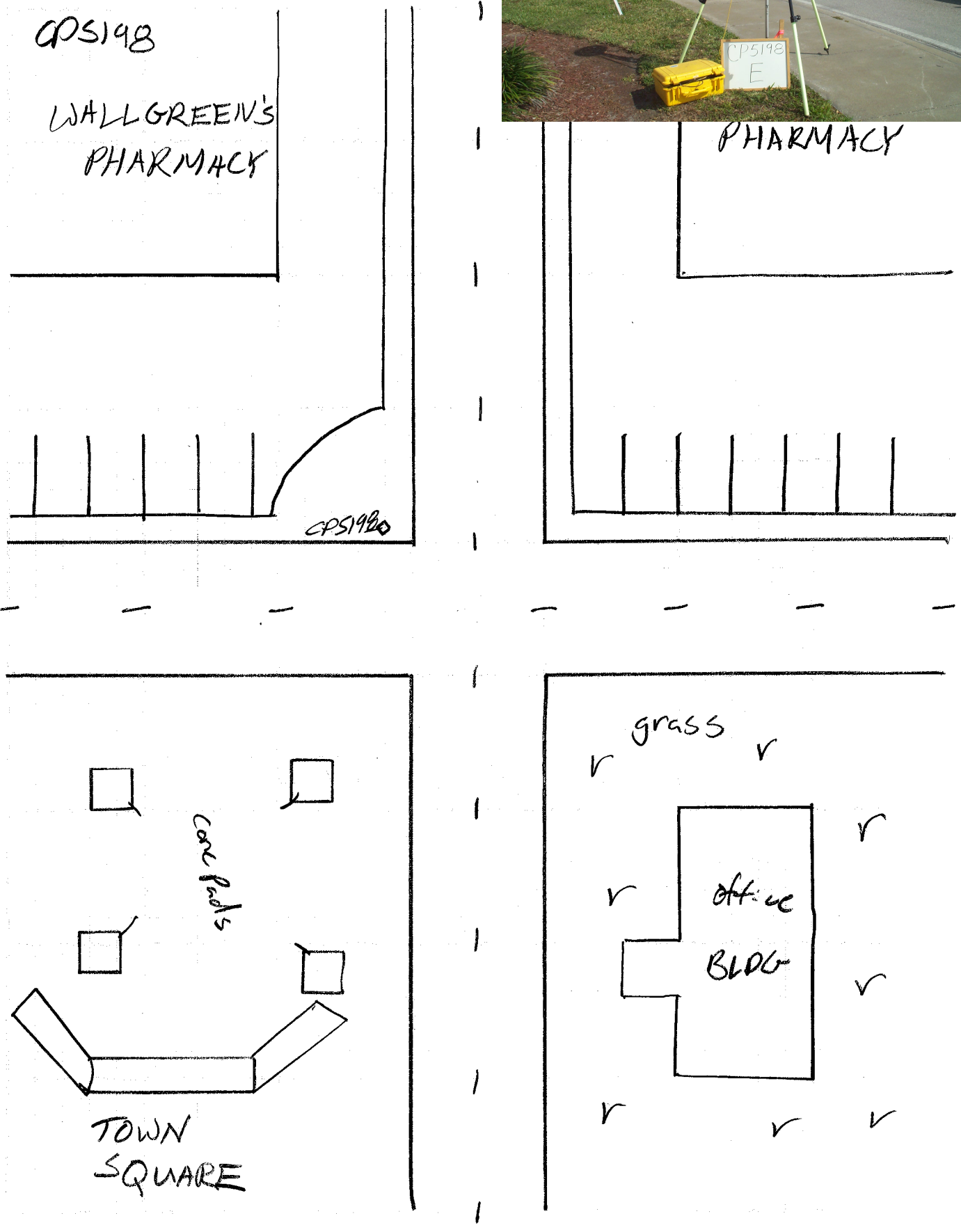
PROJECT _____

SUBJECT _____

BY _____





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BY _____ JOB NO. _____

CP5200

N

1 Story white Stucco
Seacoast National Bank

NE 5th St.

1 Story green Stucco
Buxton Funeral home

Hwy 4411

1 Story white Stucco

Economy Inn

1 Story white Stucco

NW 5th St

set N&D 3501

1 Story metal Blue Bldg.
NAPA



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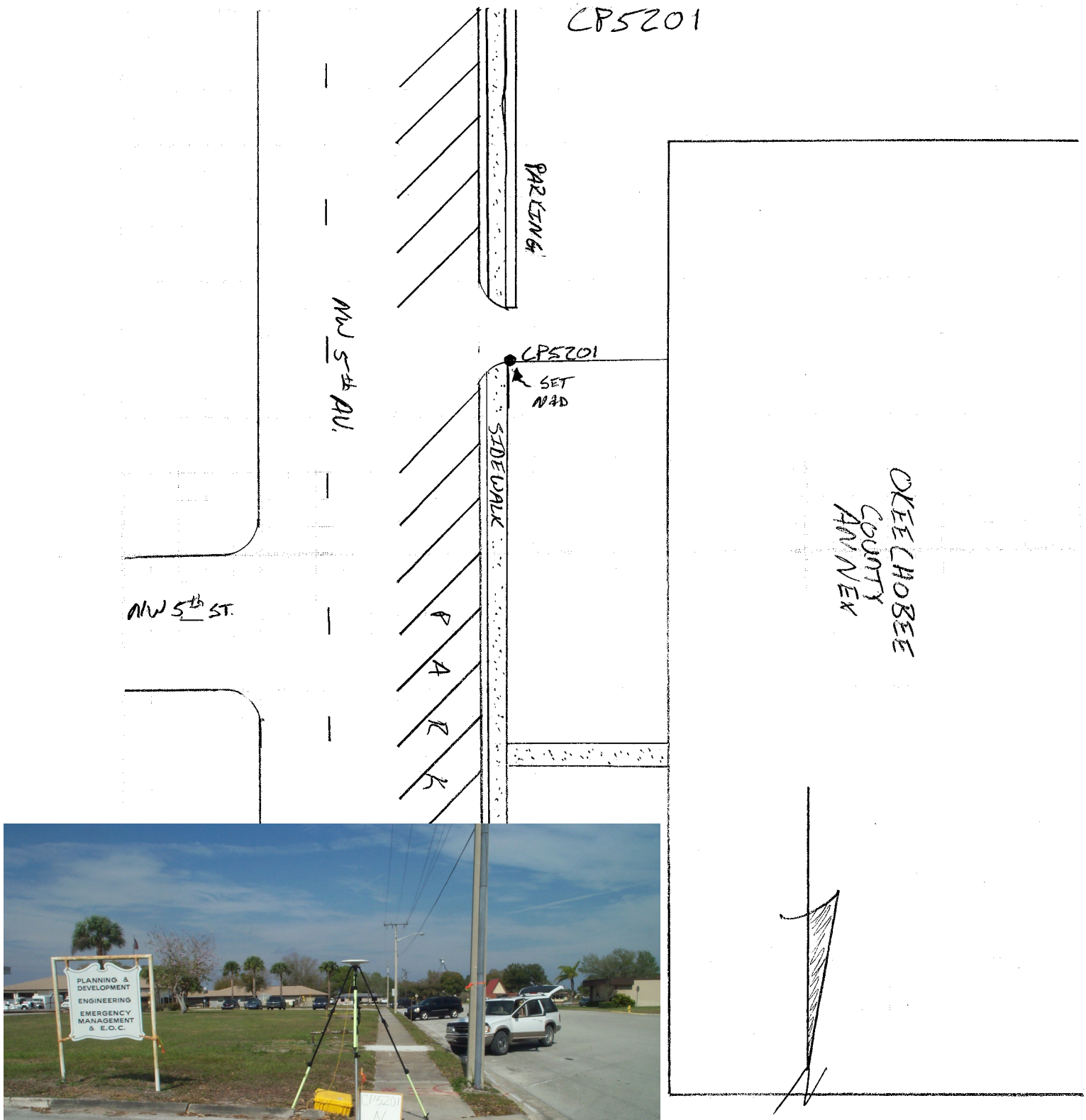

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PROJECT

SUBJECT

BY _____



CP5202

RXR

Doc's
AUTO
SERVICE

N

HWY 441

CP5202
SET NAD

NW 9th ST

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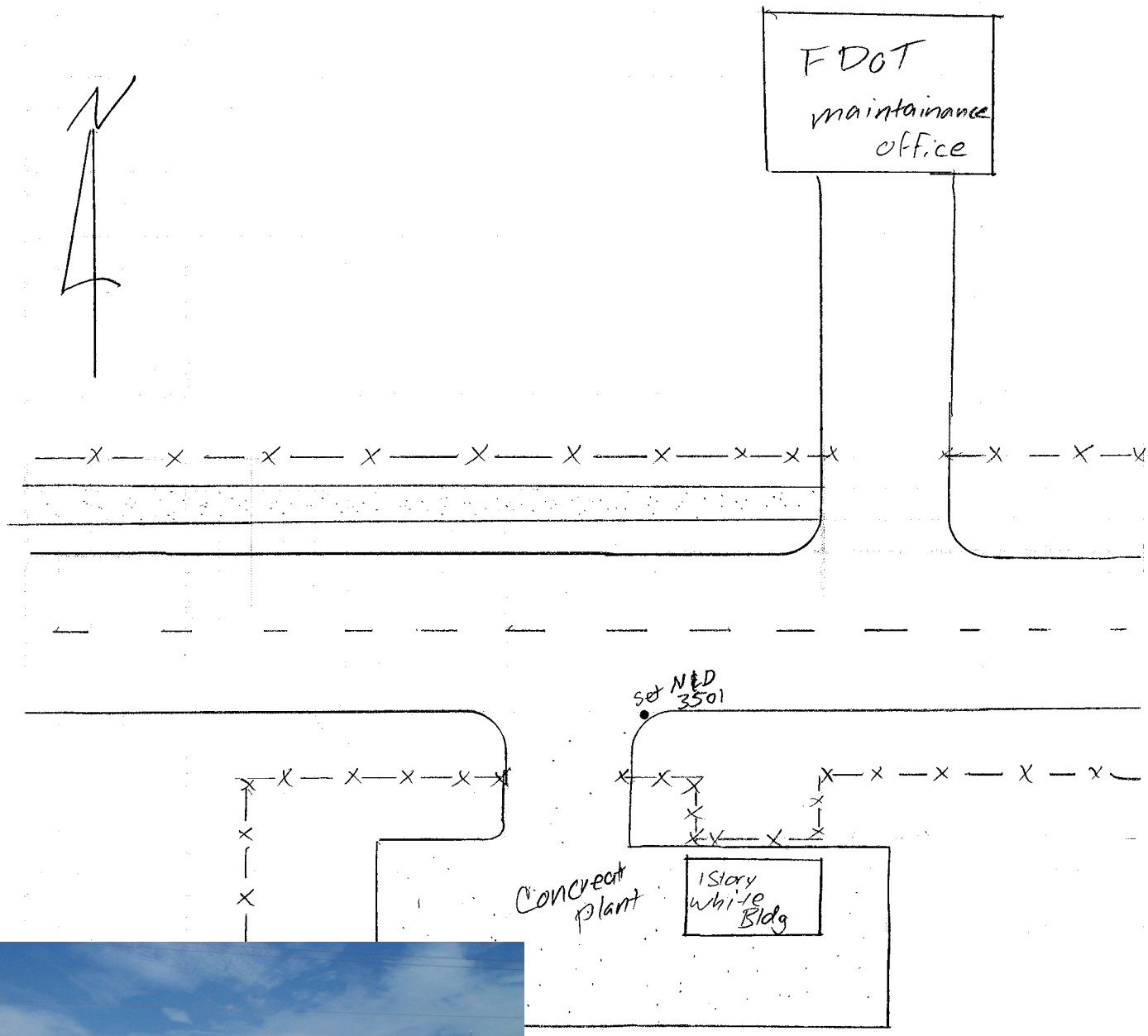
CP 5203





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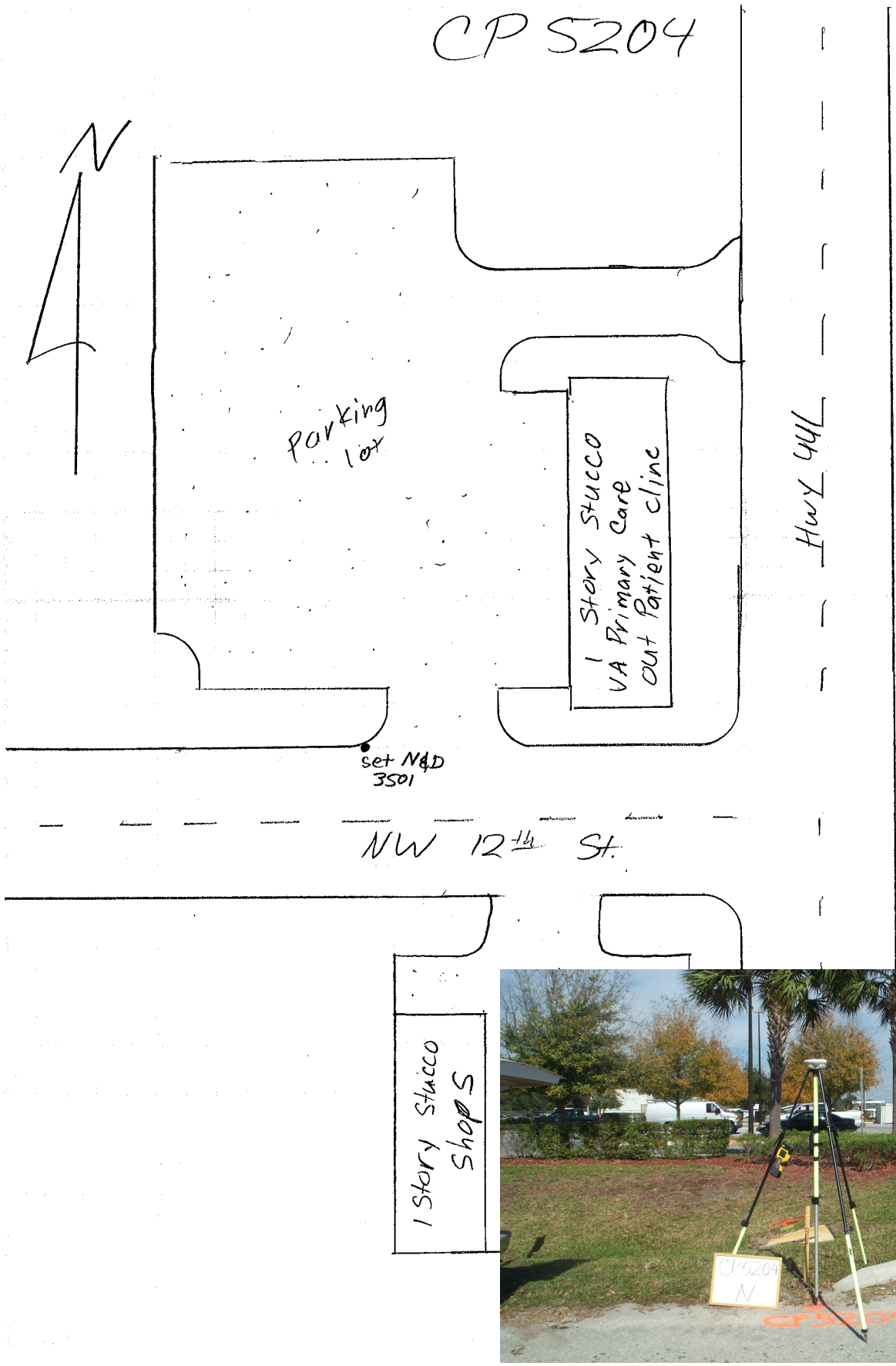

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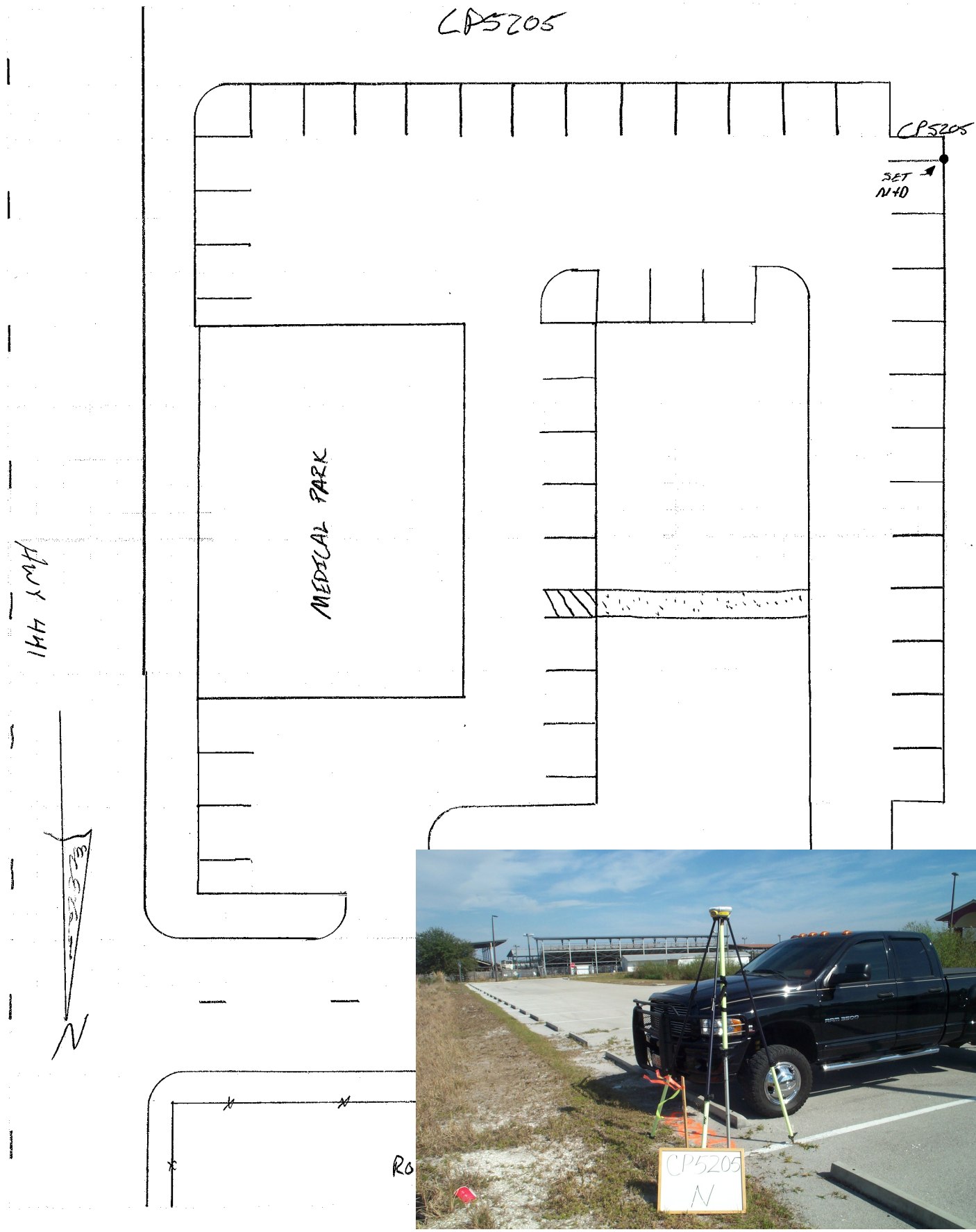
CP5205



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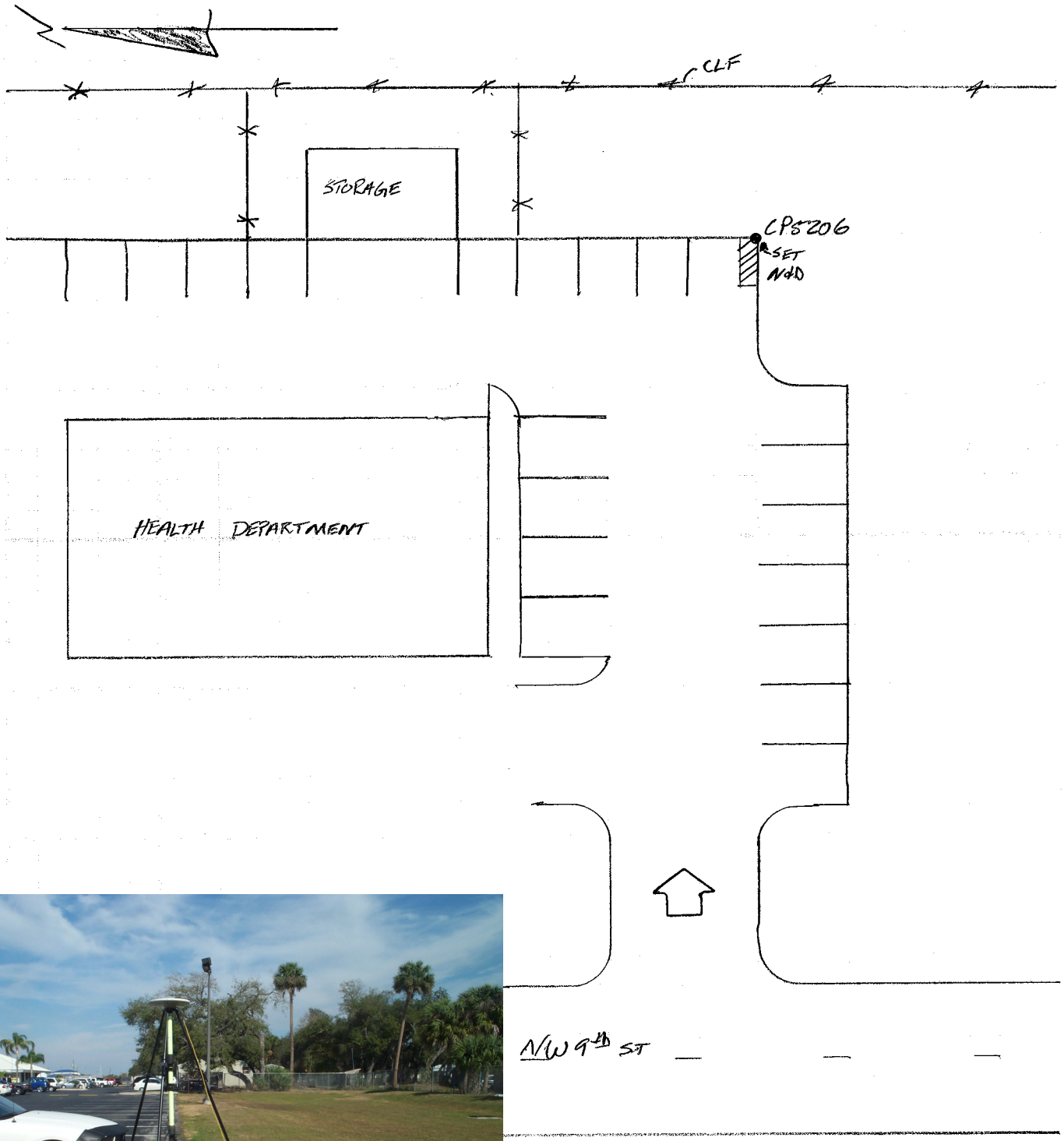
BY _____ JOB NO. _____

CP5206





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NICEVILLE, FLORIDA 32578
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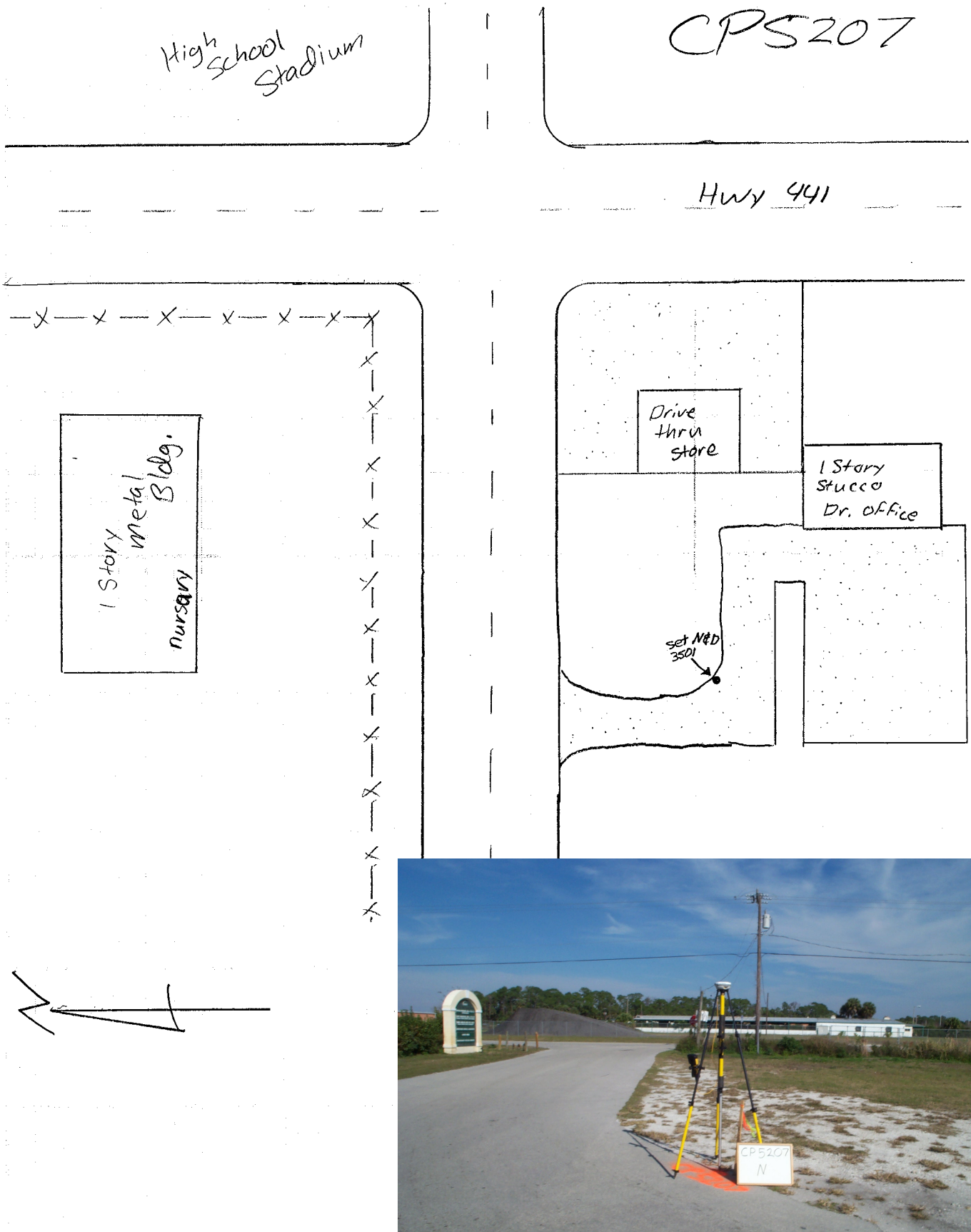

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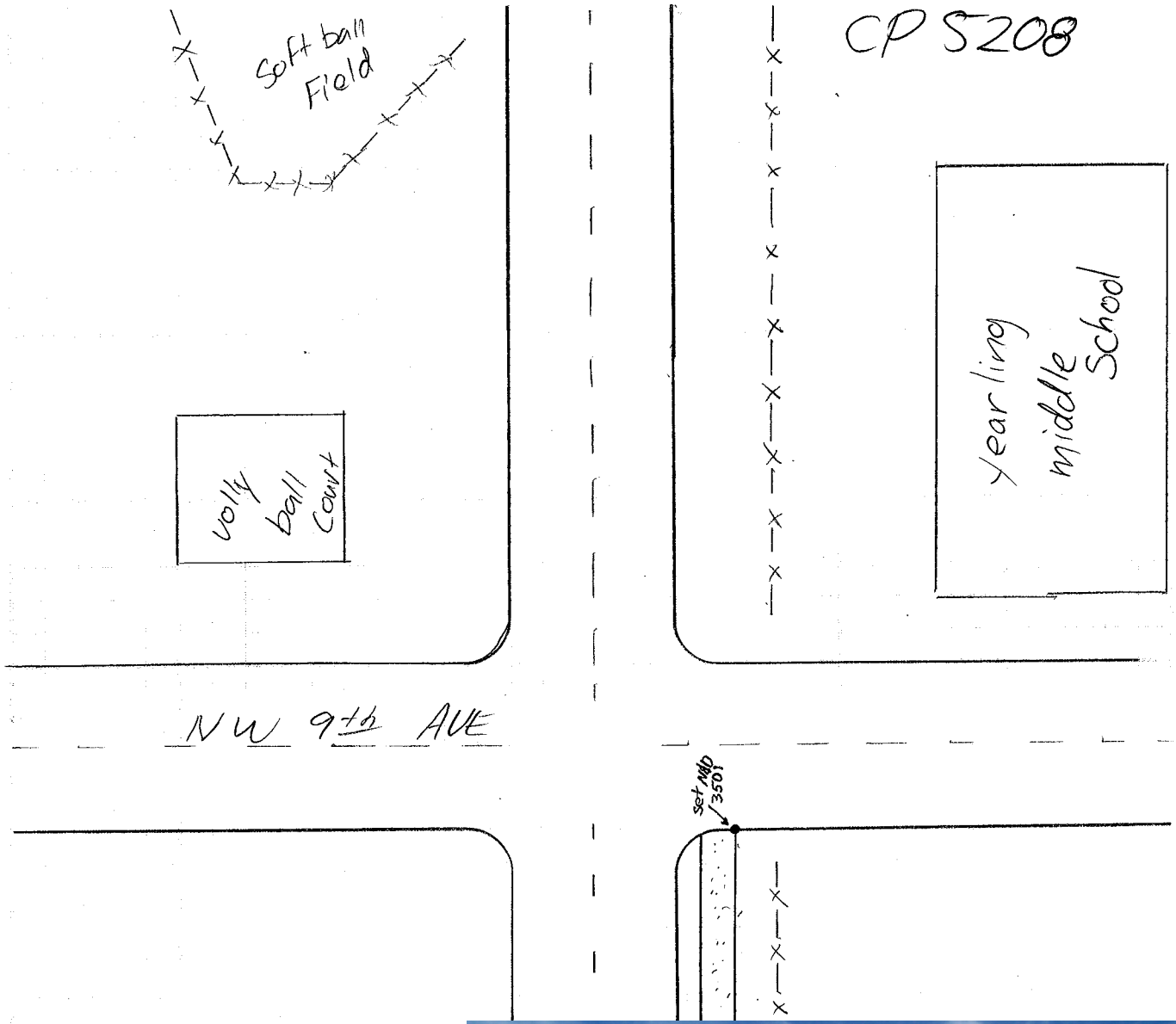



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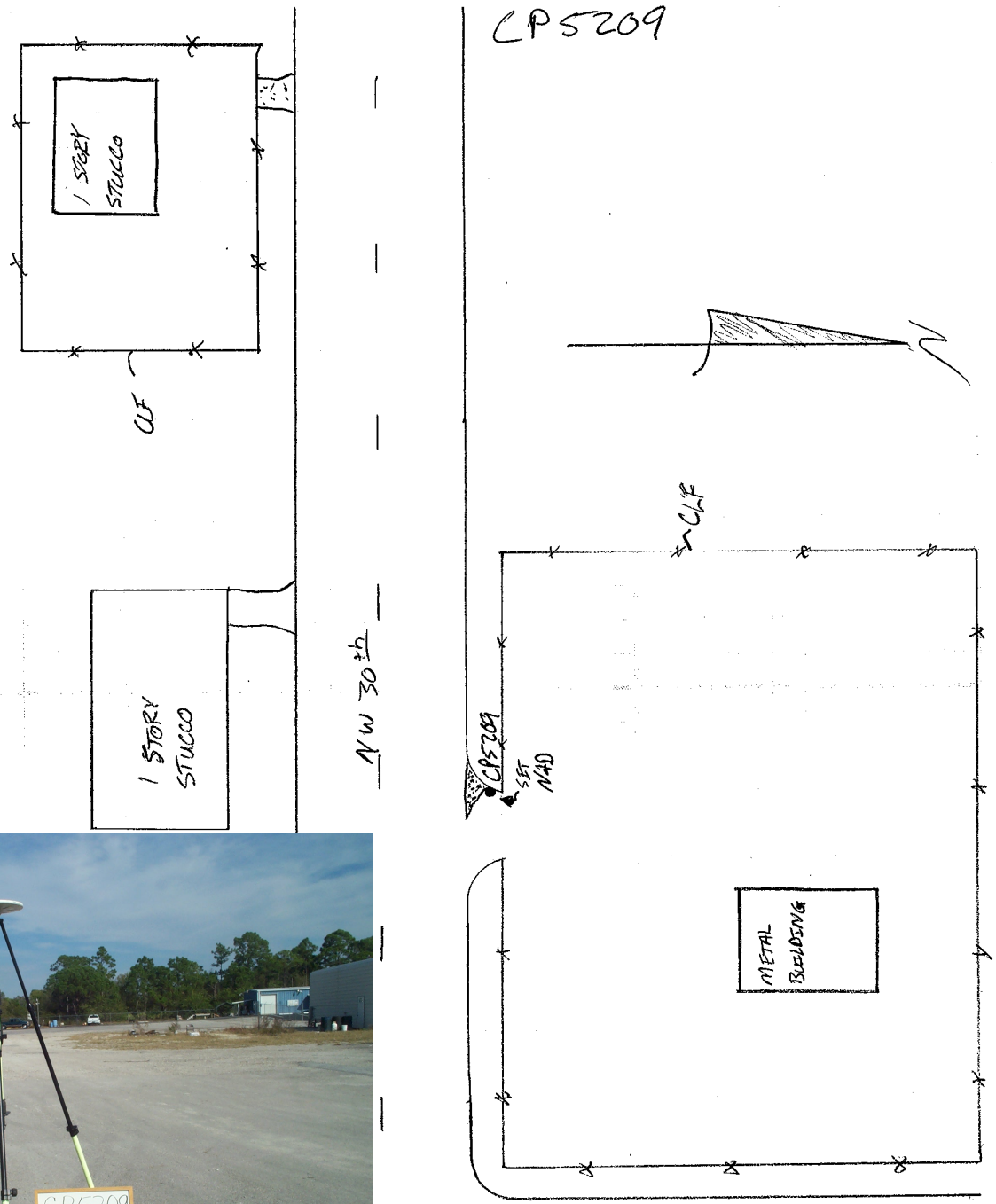
CP5209





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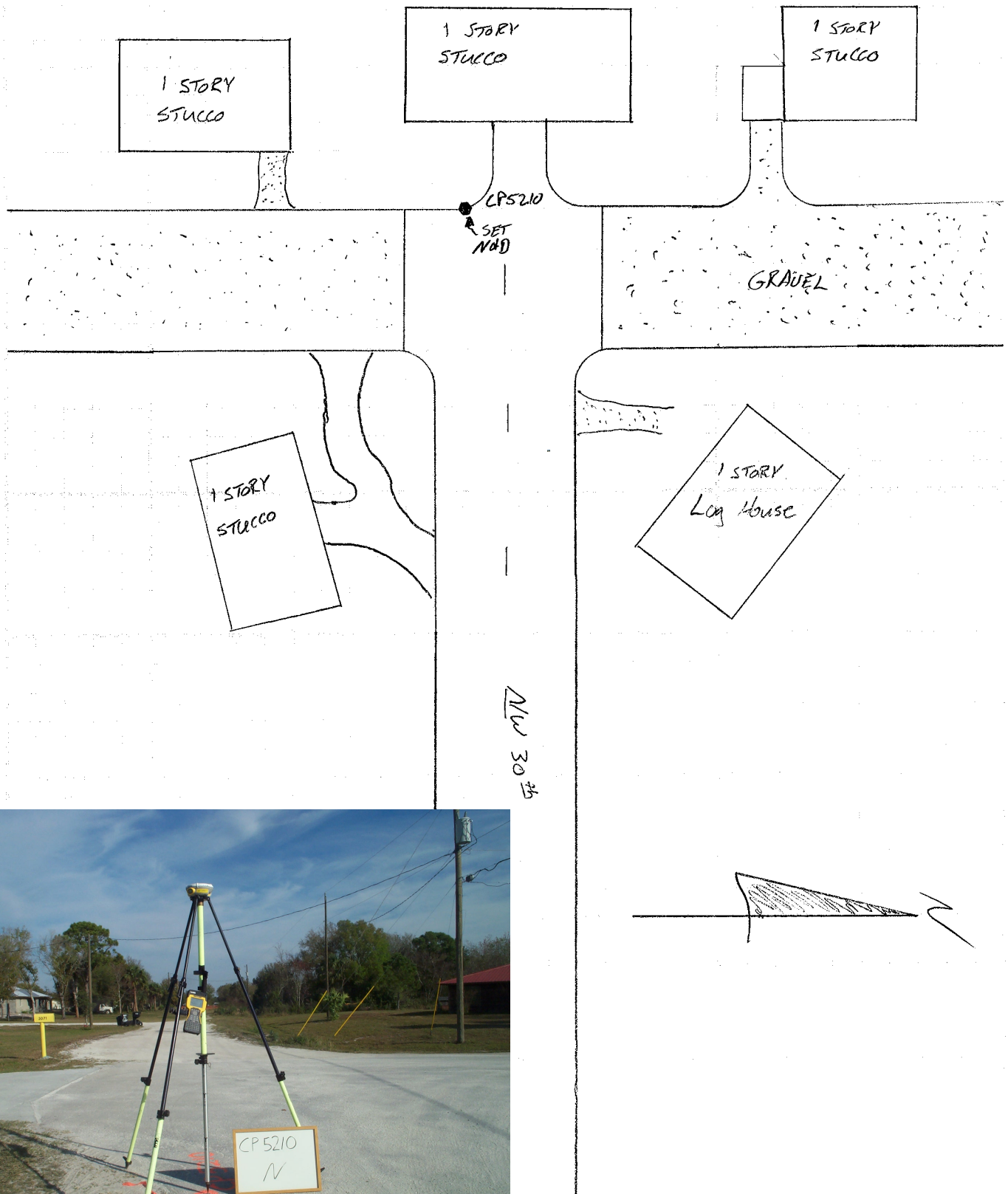
CP5210



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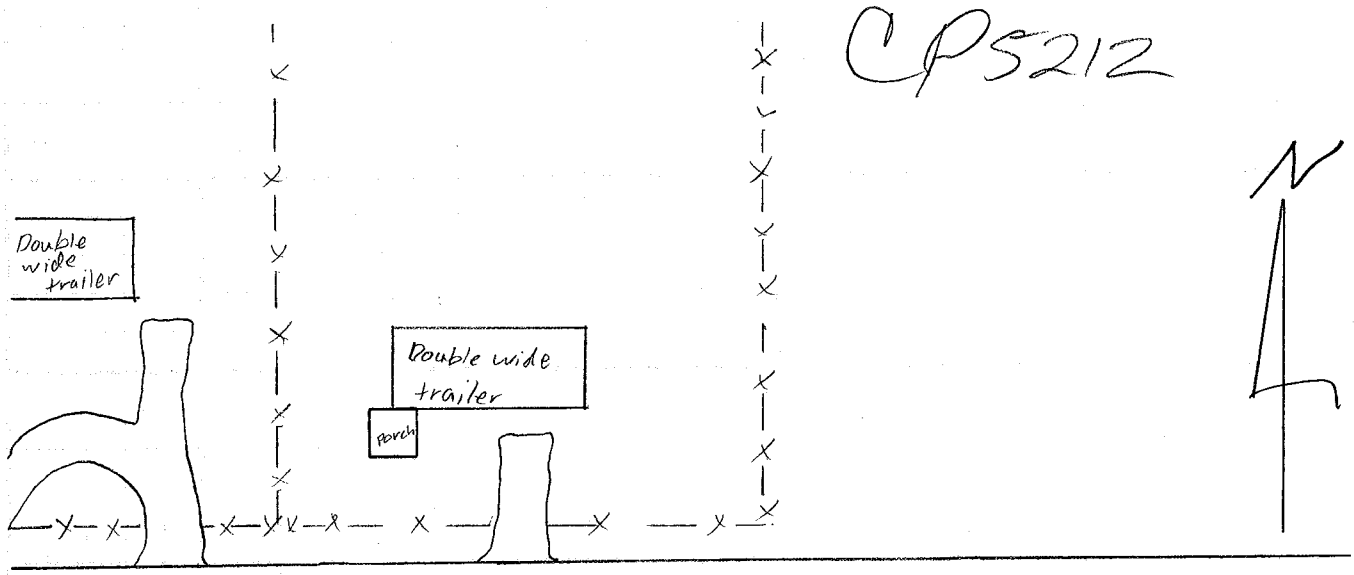
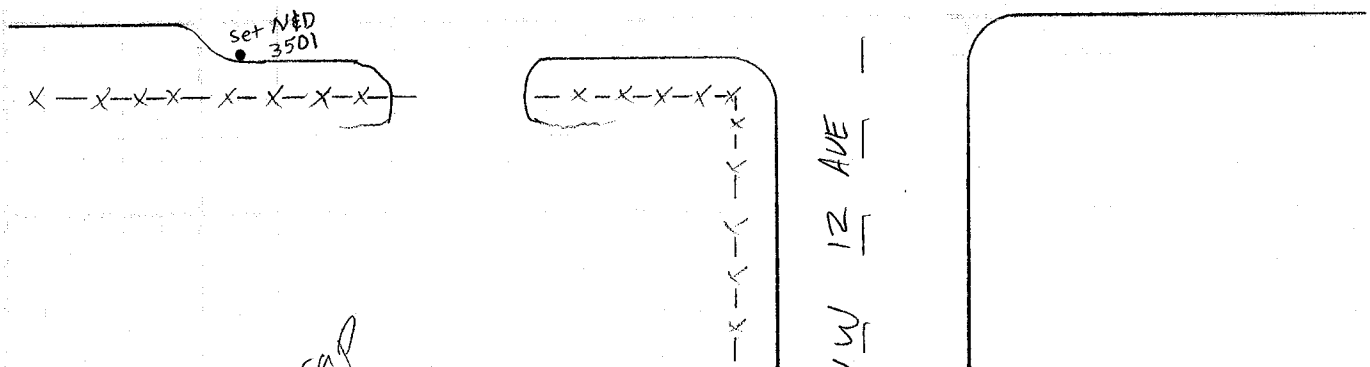
CP5212



NW 36 St.



scrap yard



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SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5213

Dirt Road

Set N&D 3501

1 Story Brick

N

NW 19th AVE

NE 36th St



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CP5214



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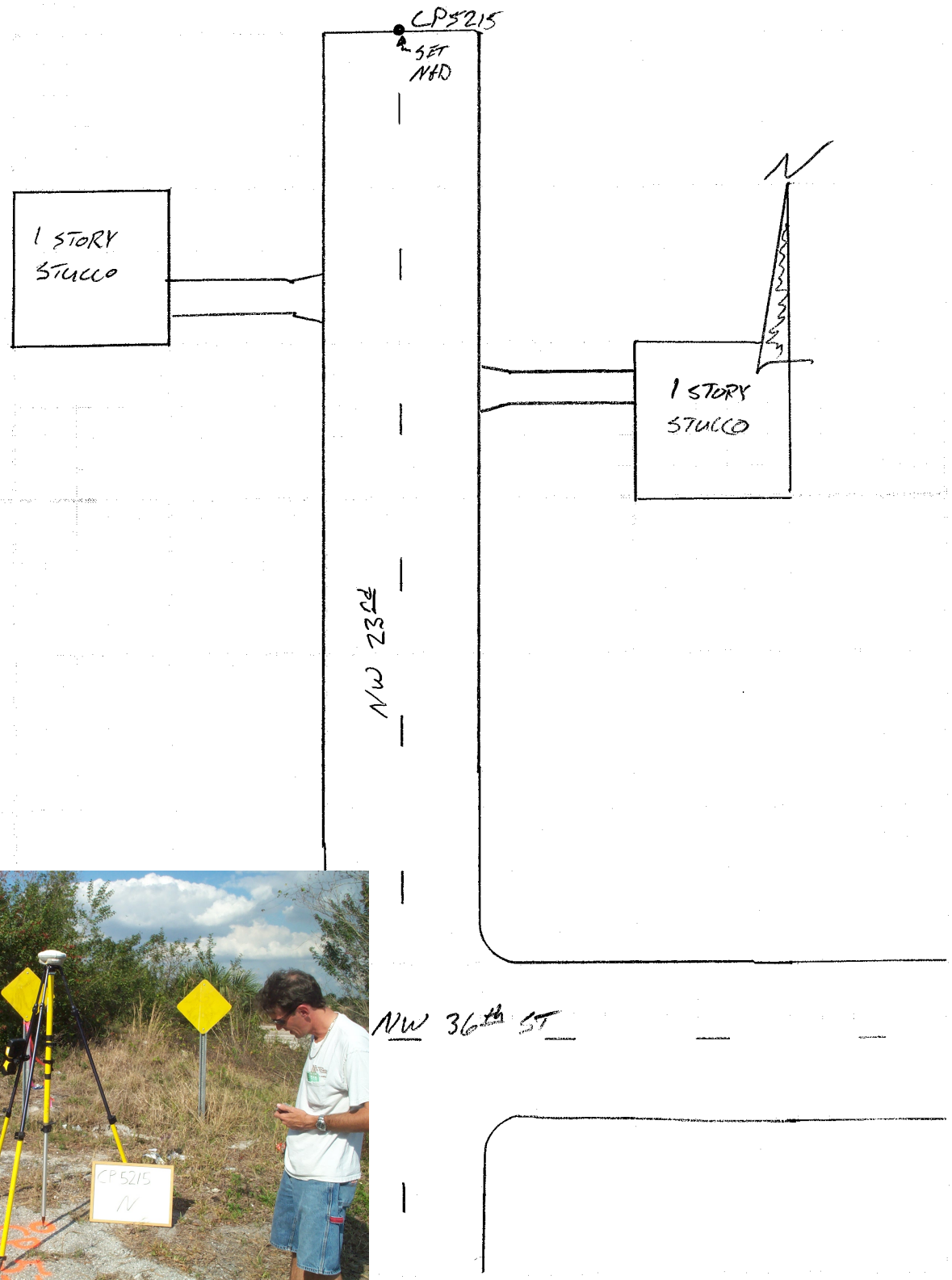
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5215





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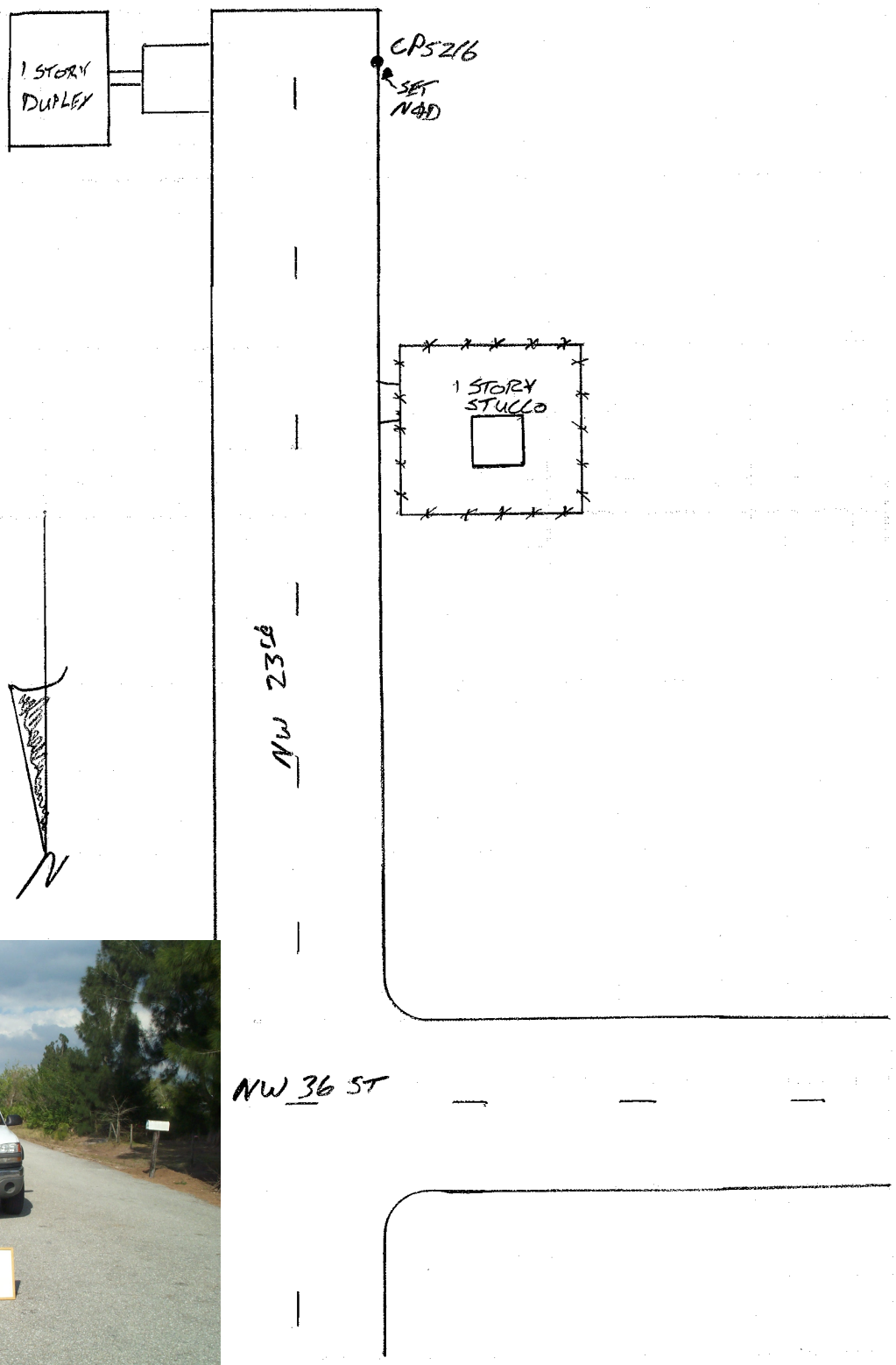
BY _____ JOB NO. _____

CP5216





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CP 5217



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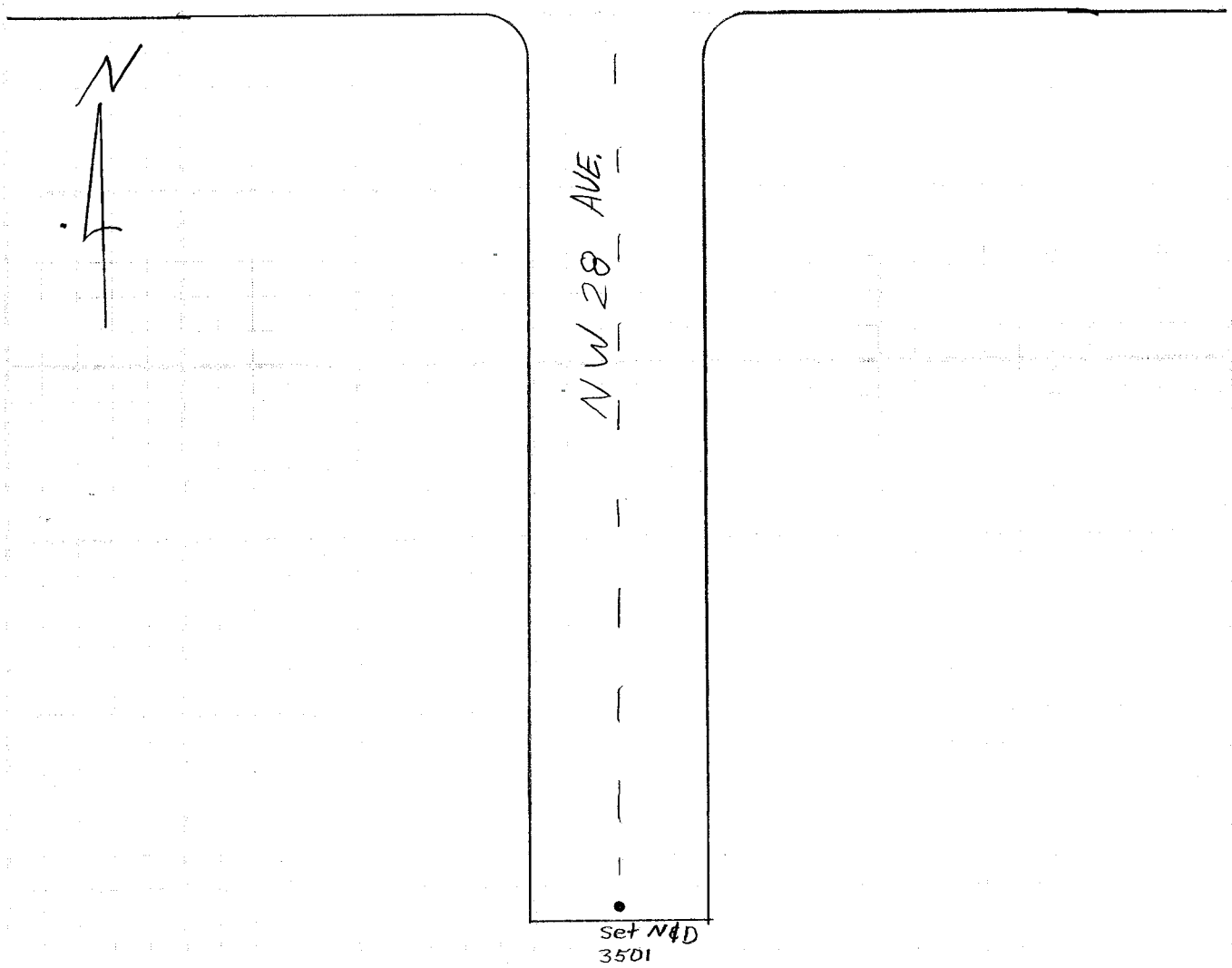
CP5218





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Canal

CP5219

set N&D 3501

1 Story yellow vinle home

1 Story Brown Stucco

NW 33 AVE

NW 36 St.

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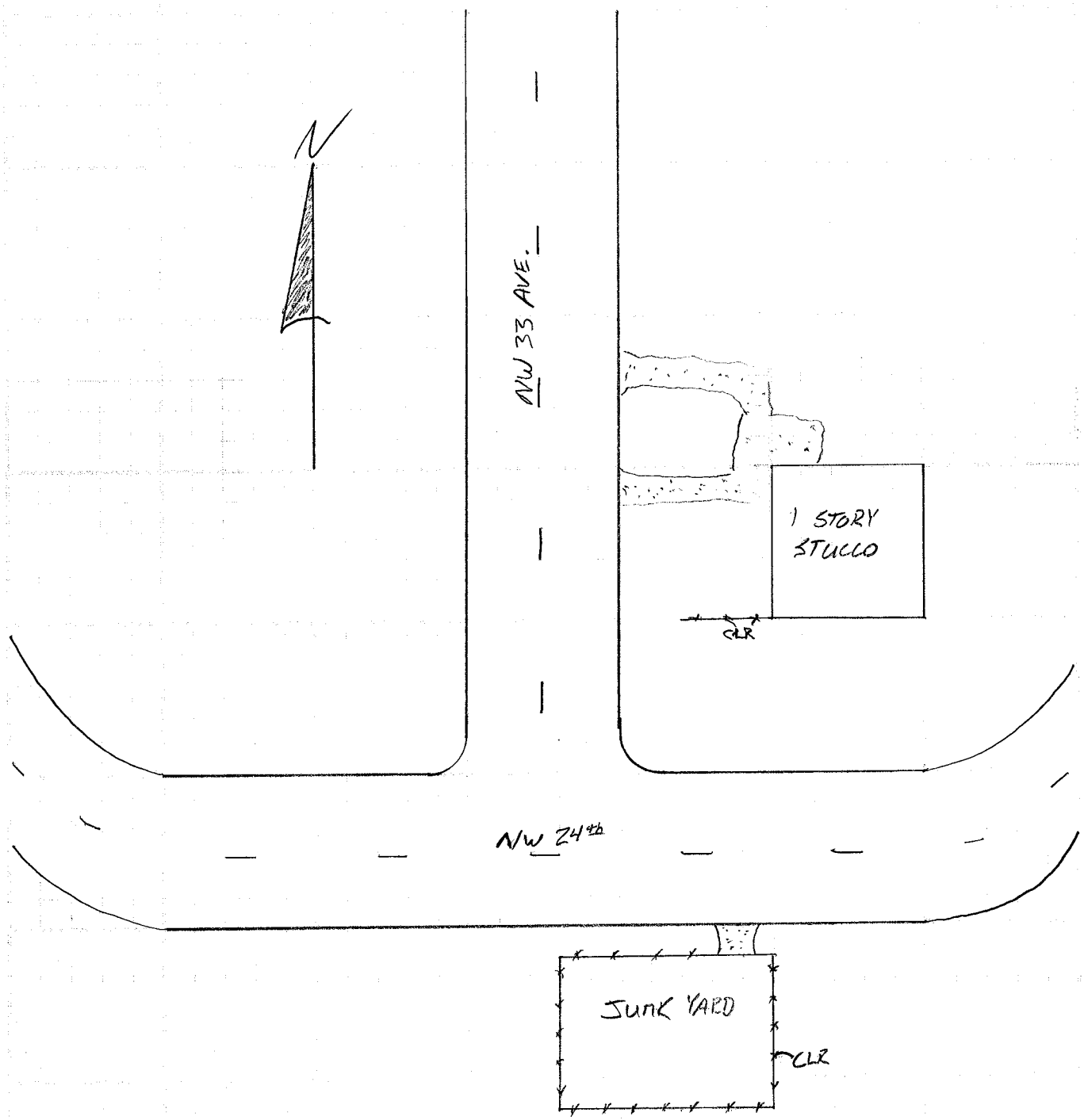
CP5220



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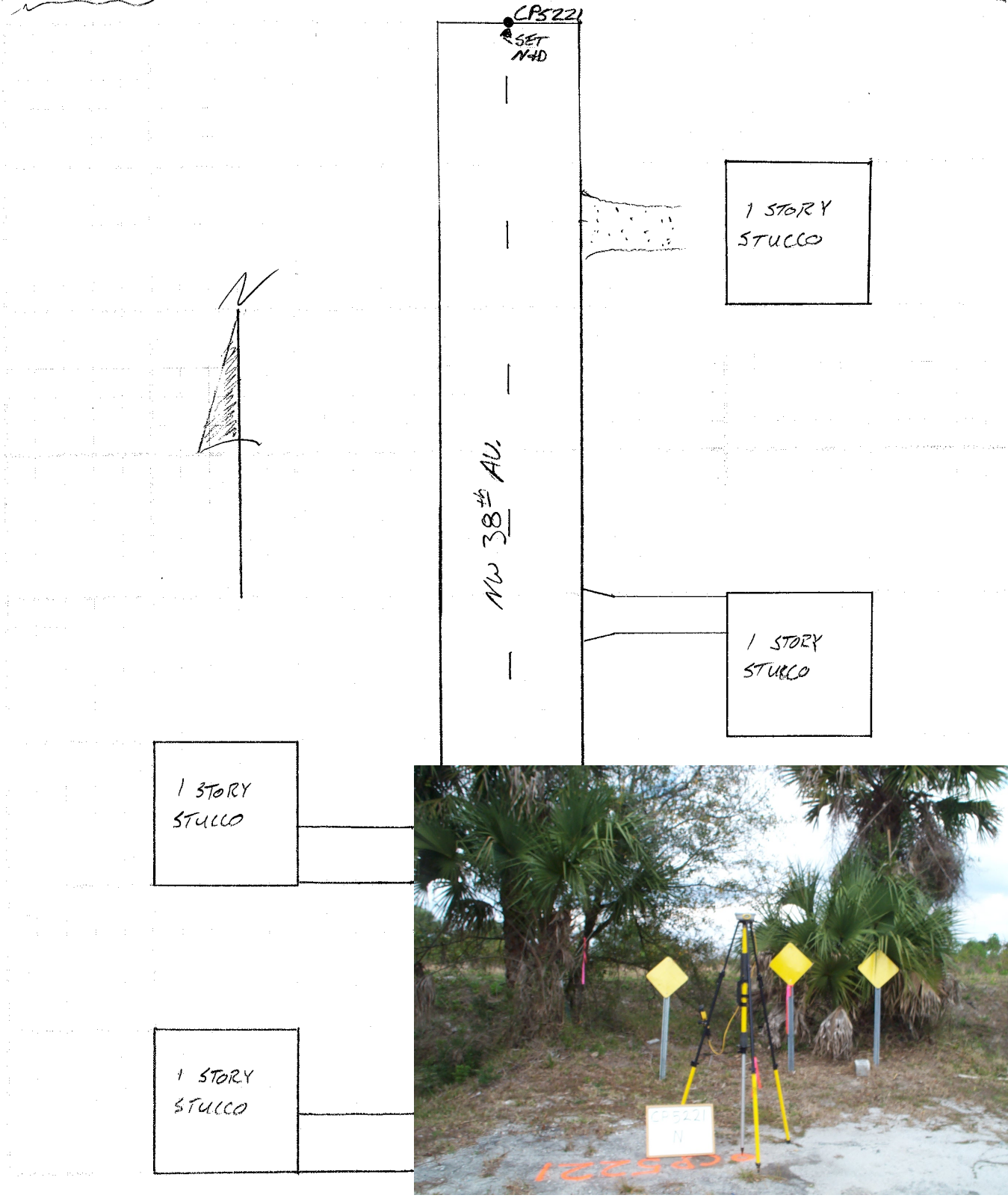
BY _____ JOB NO. _____

CP5221

CANAL



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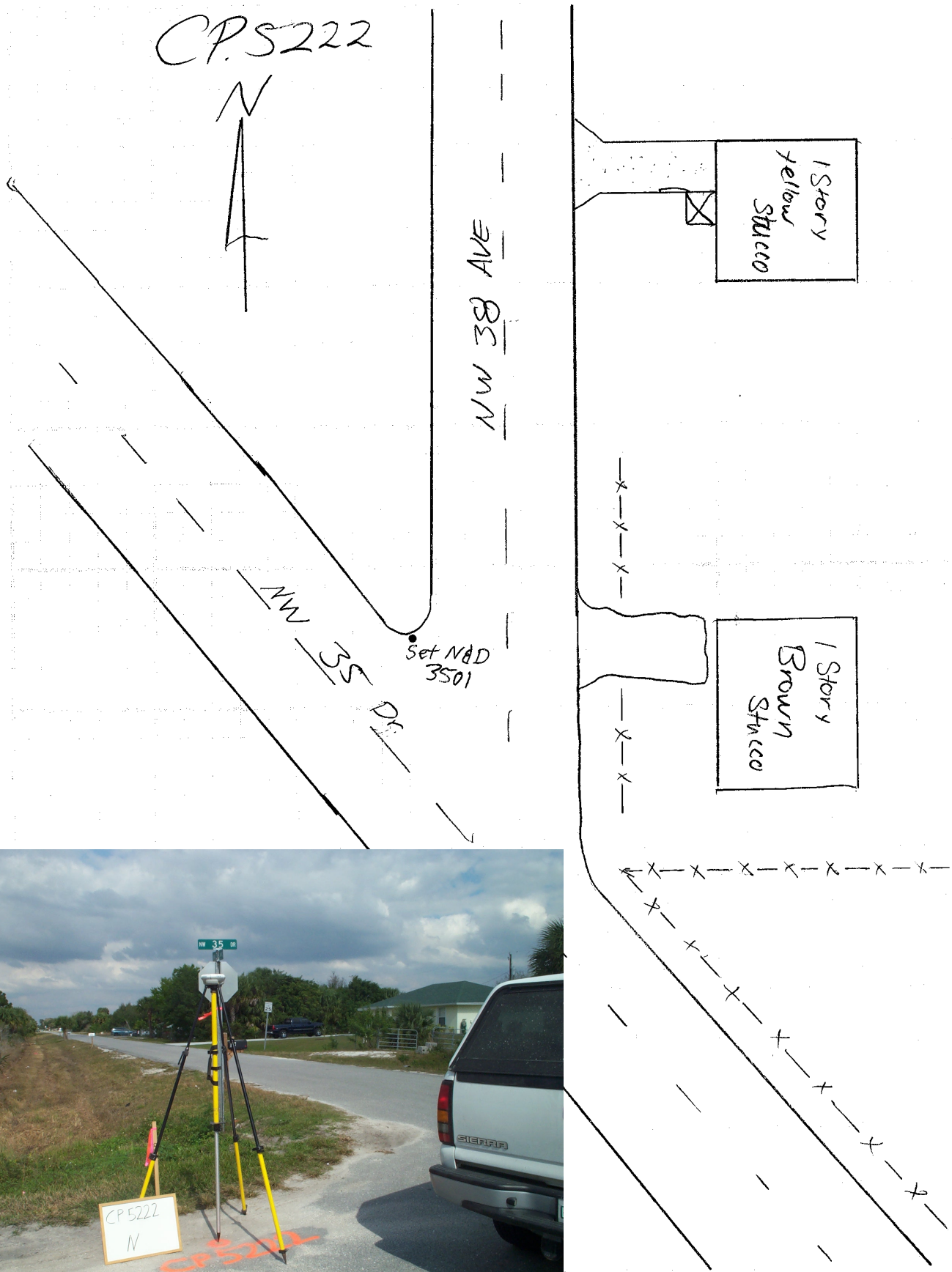

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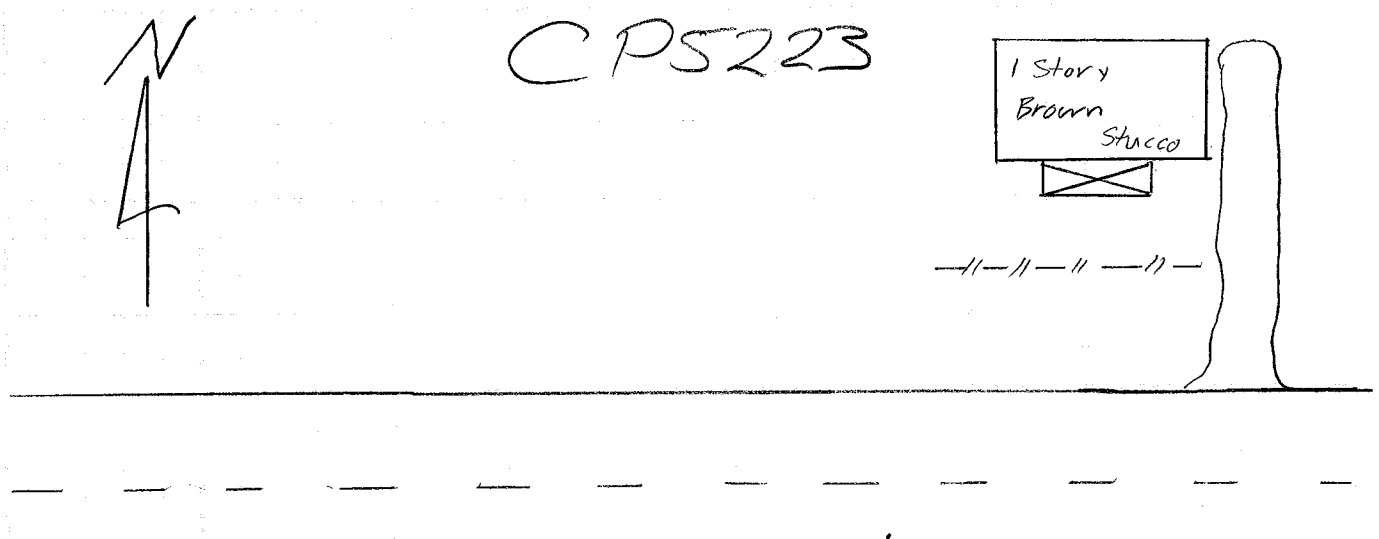

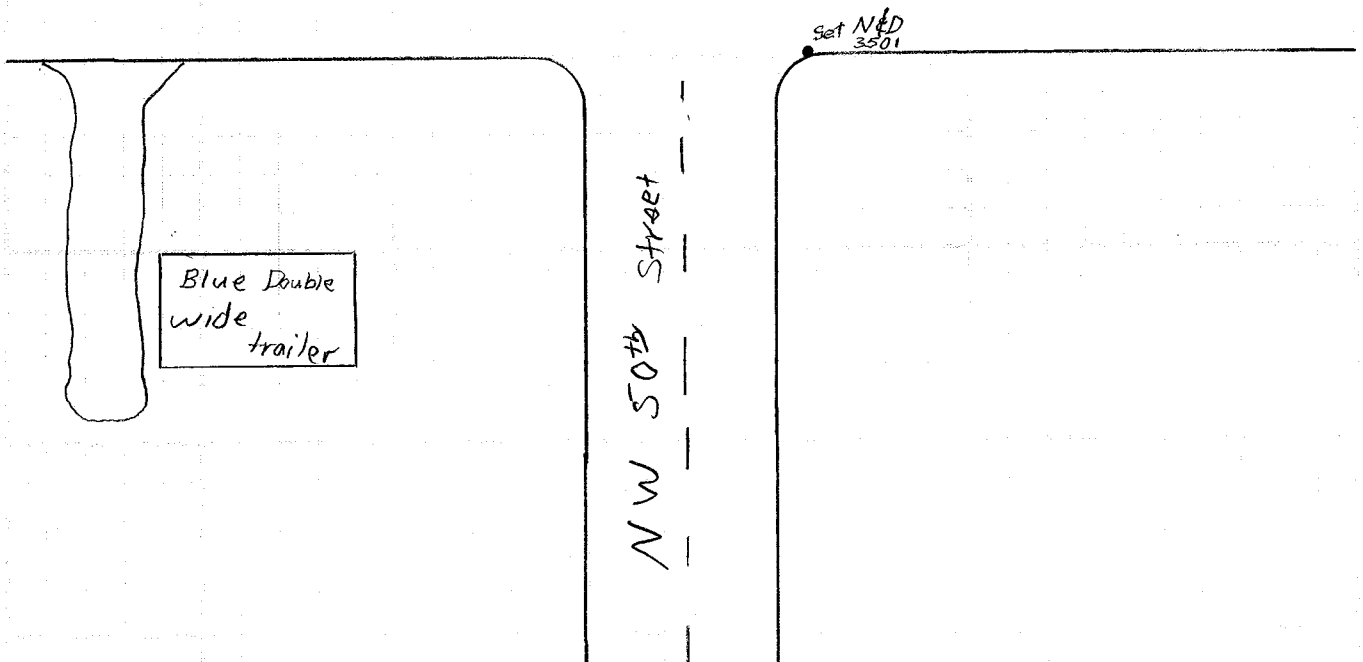



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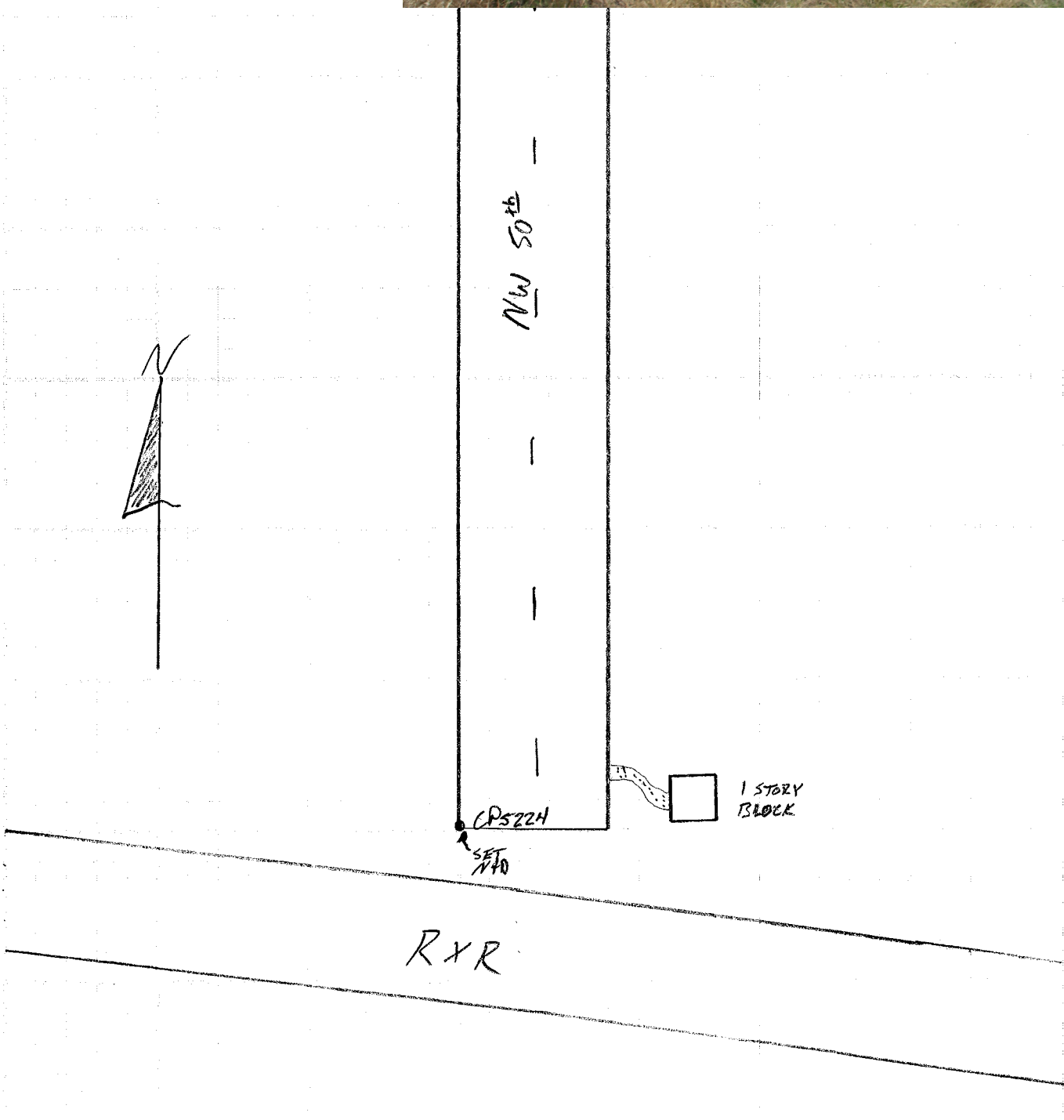
(850) 678-5141

CP5224





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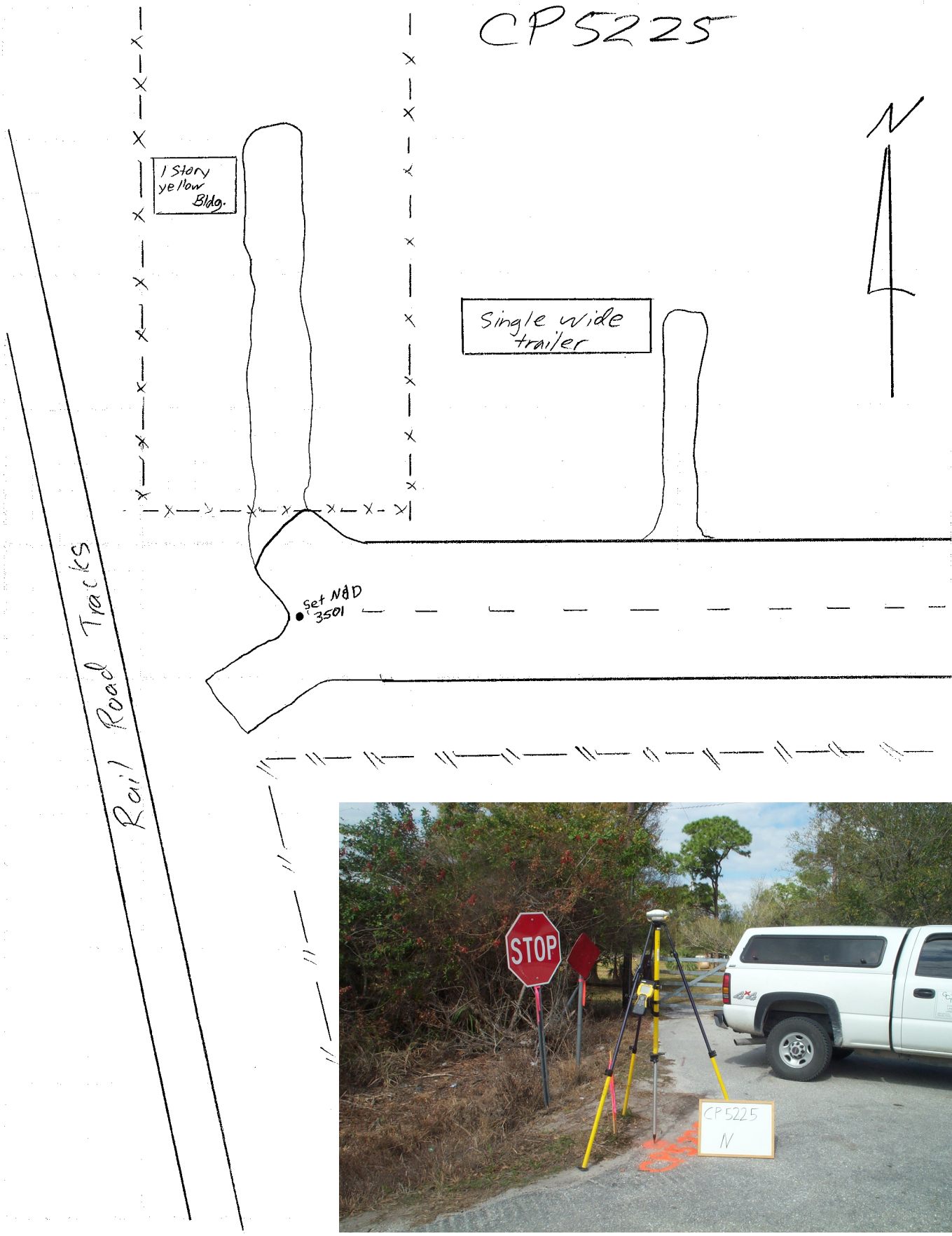
PROJECT _____ SHEET _____ OF _____ .

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5225



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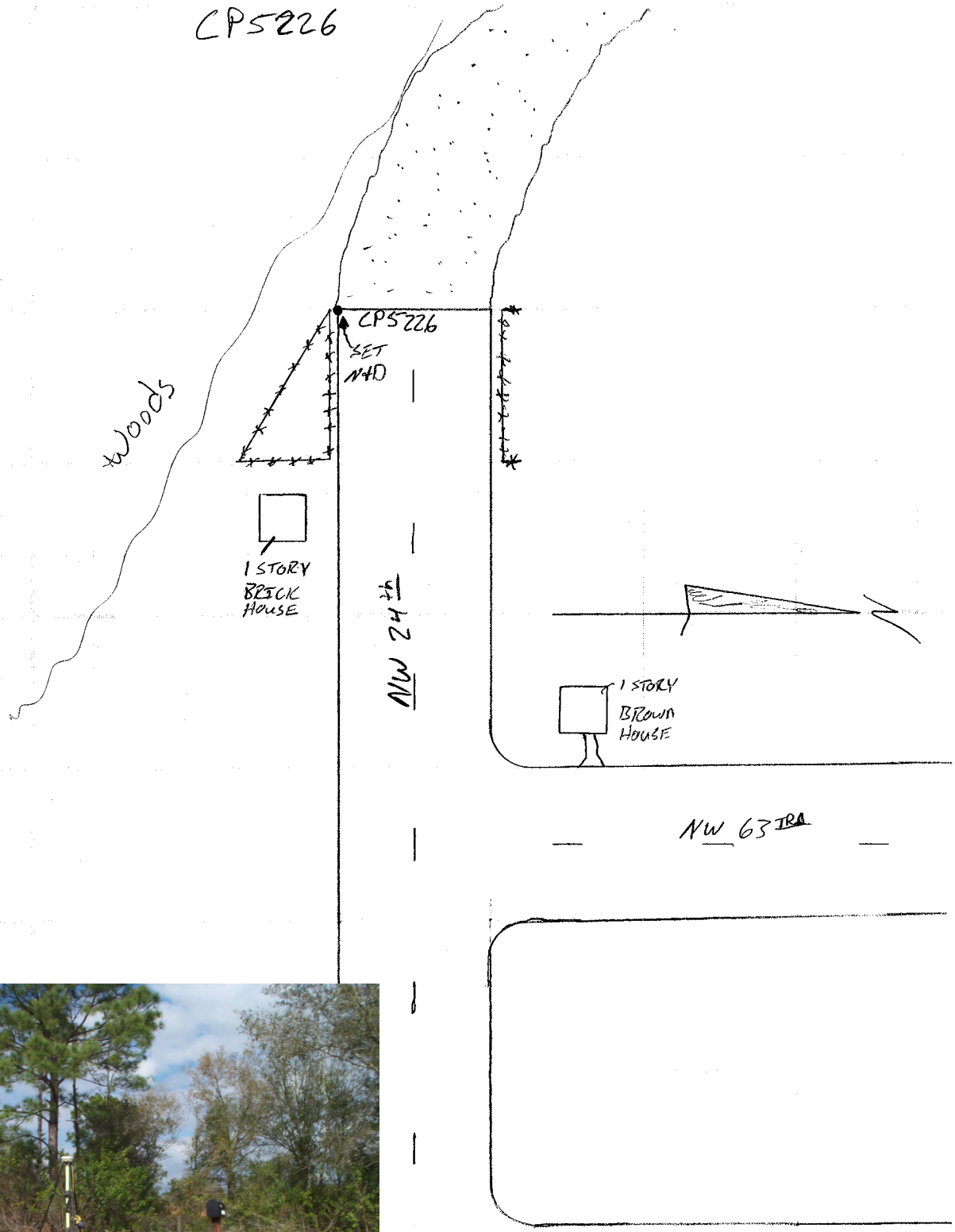



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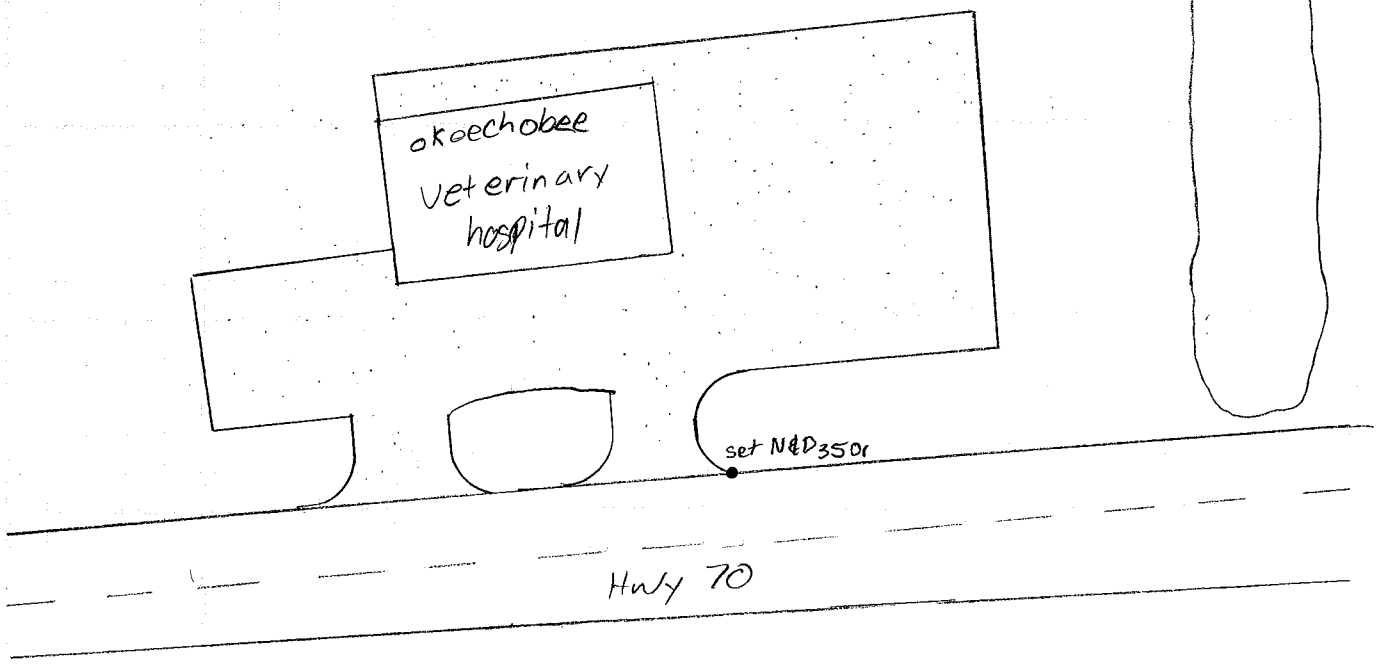
BY _____ JOB NO. _____

CP5227







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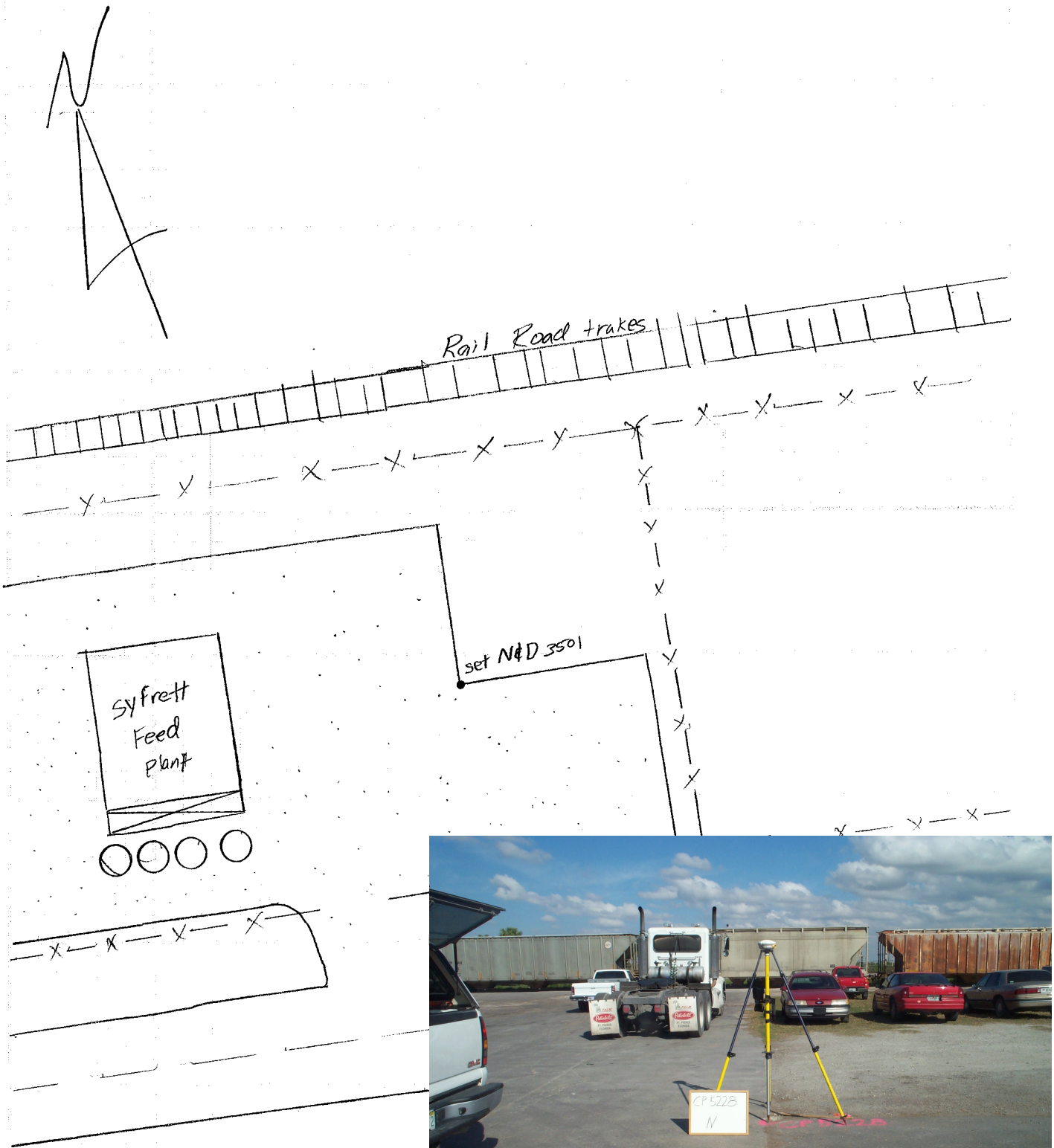
BY _____ JOB NO. _____

CP 5228



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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5229



N

Picnic Area

1 Story Stucco
Turquise & white

Set NGD2501

Hwy 70

GUSTIN, COTHERN & TUCKER, INC.
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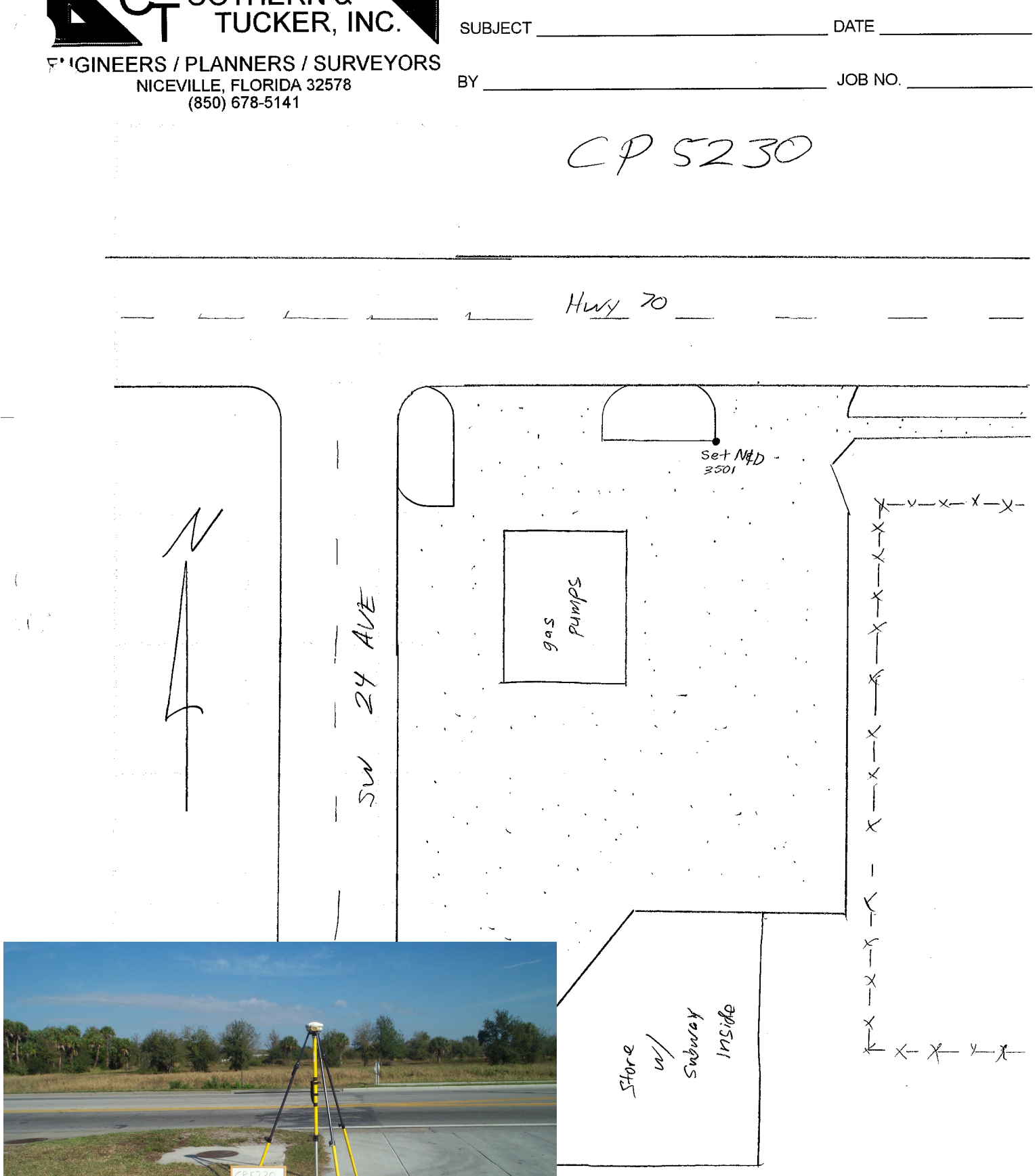
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5230



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PROJECT _____ SHEET _____ OF _____

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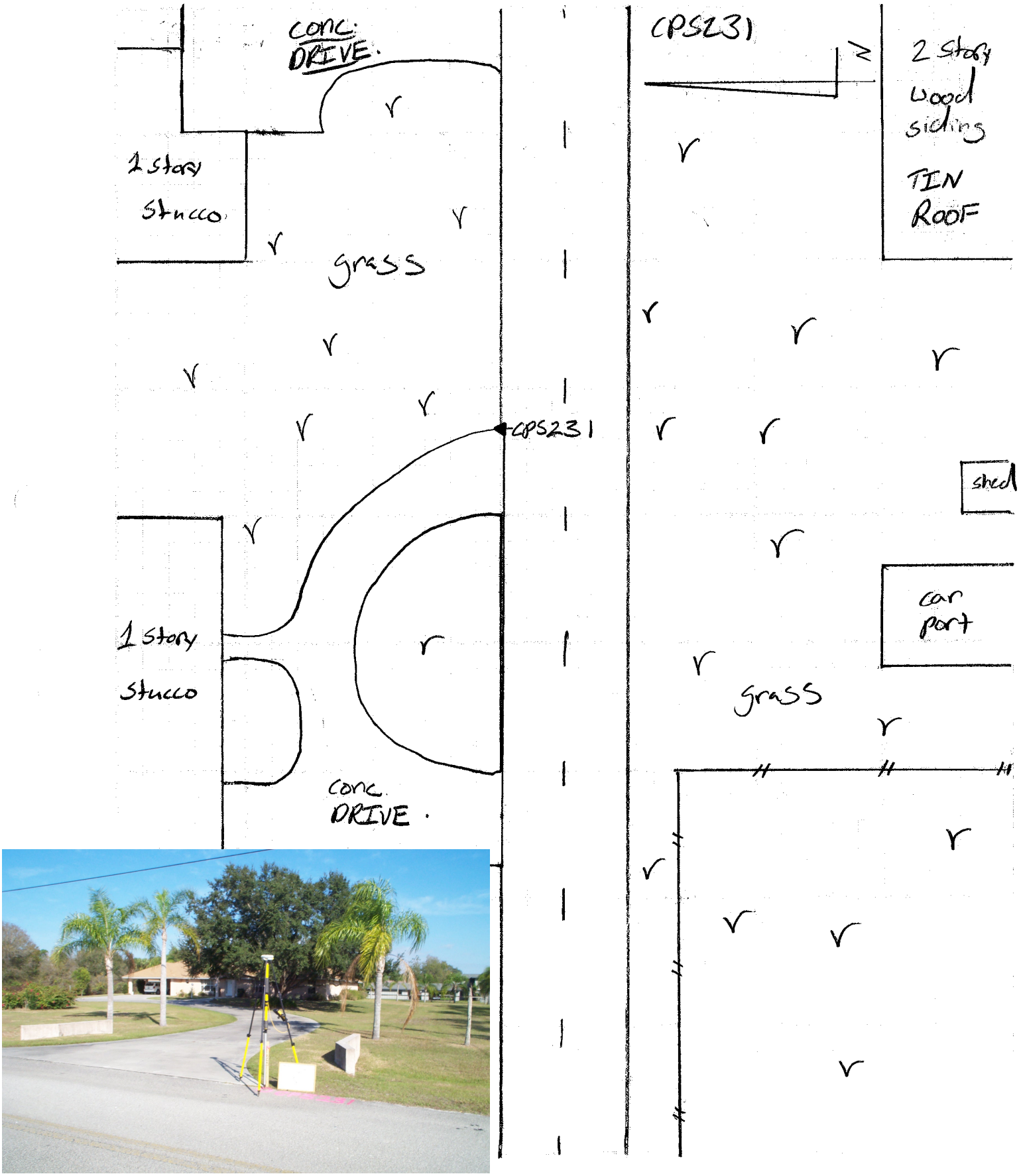

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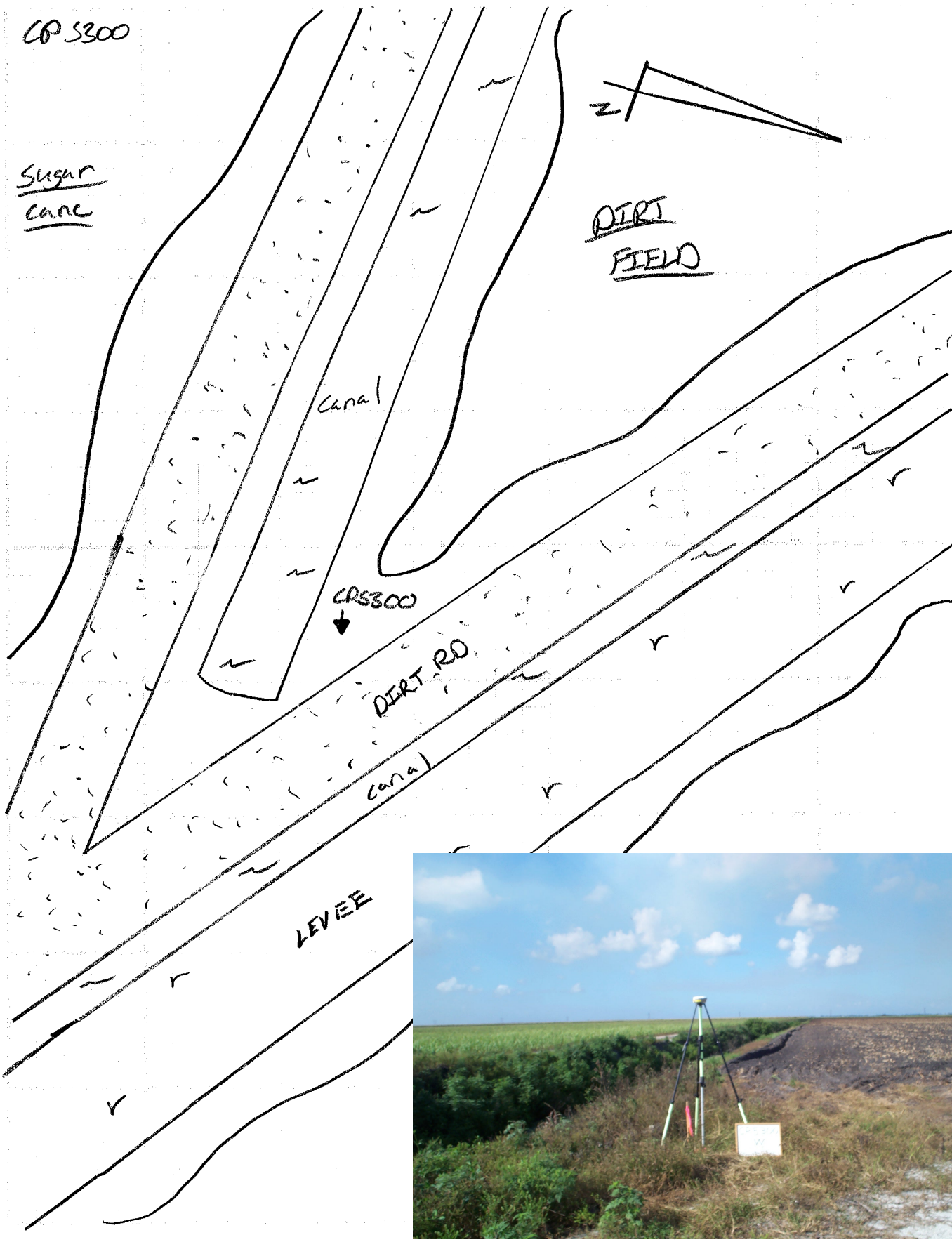

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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



CP5301

CANAL

LEVY

brush

OHE

brush

Creek

N

CP5301

brush

OHE

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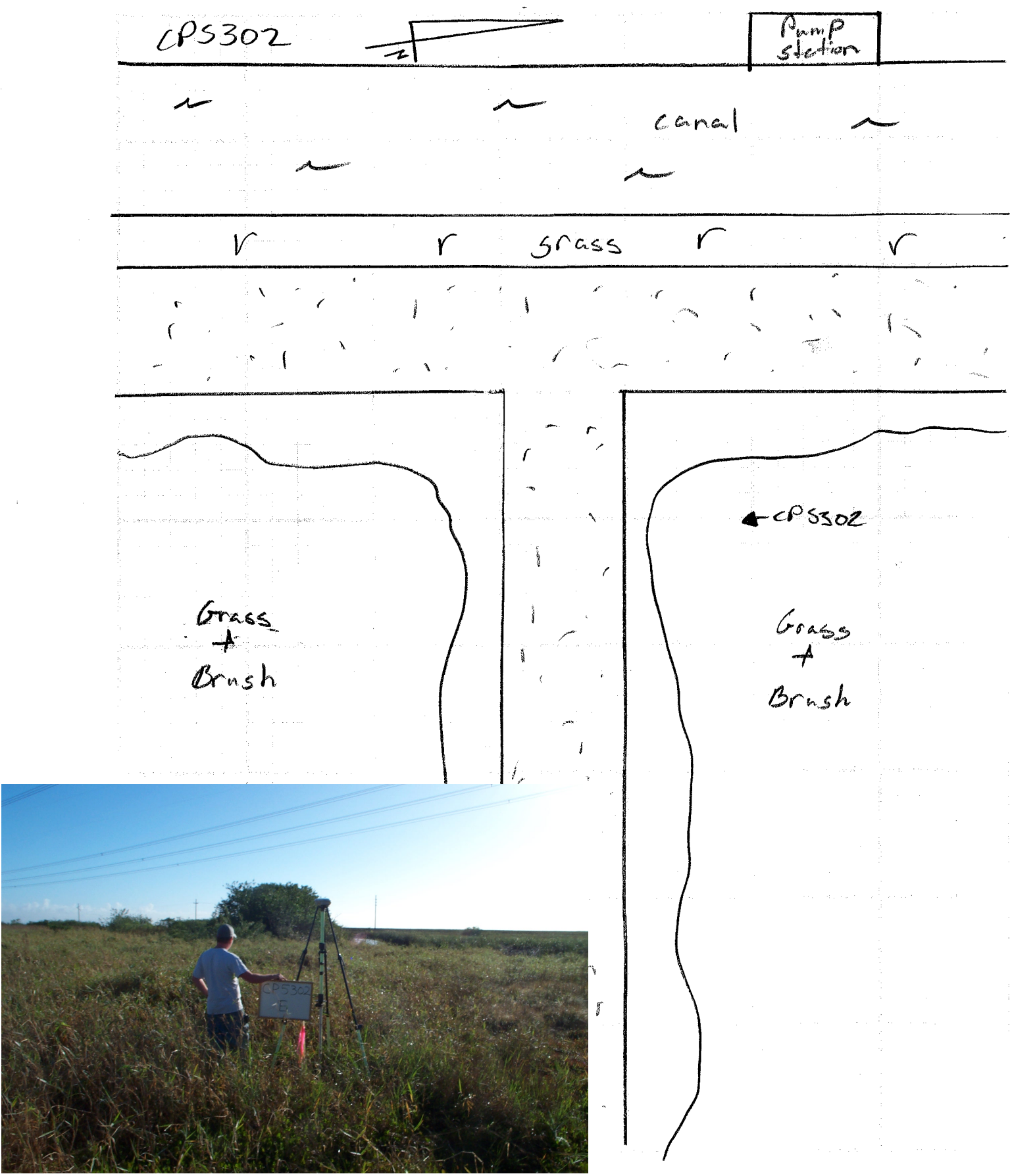

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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5303

N

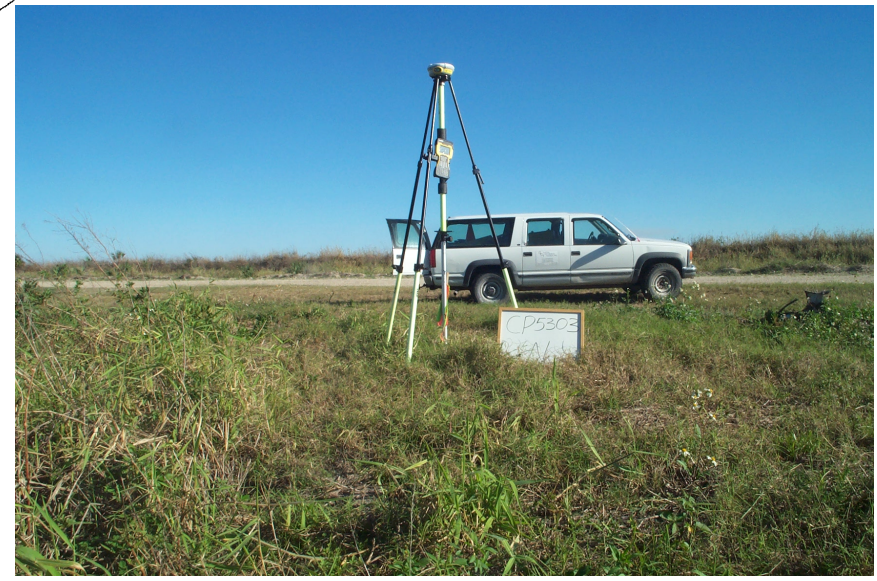
Canal

dirt road

CP5303

• SIR 3501

Canal



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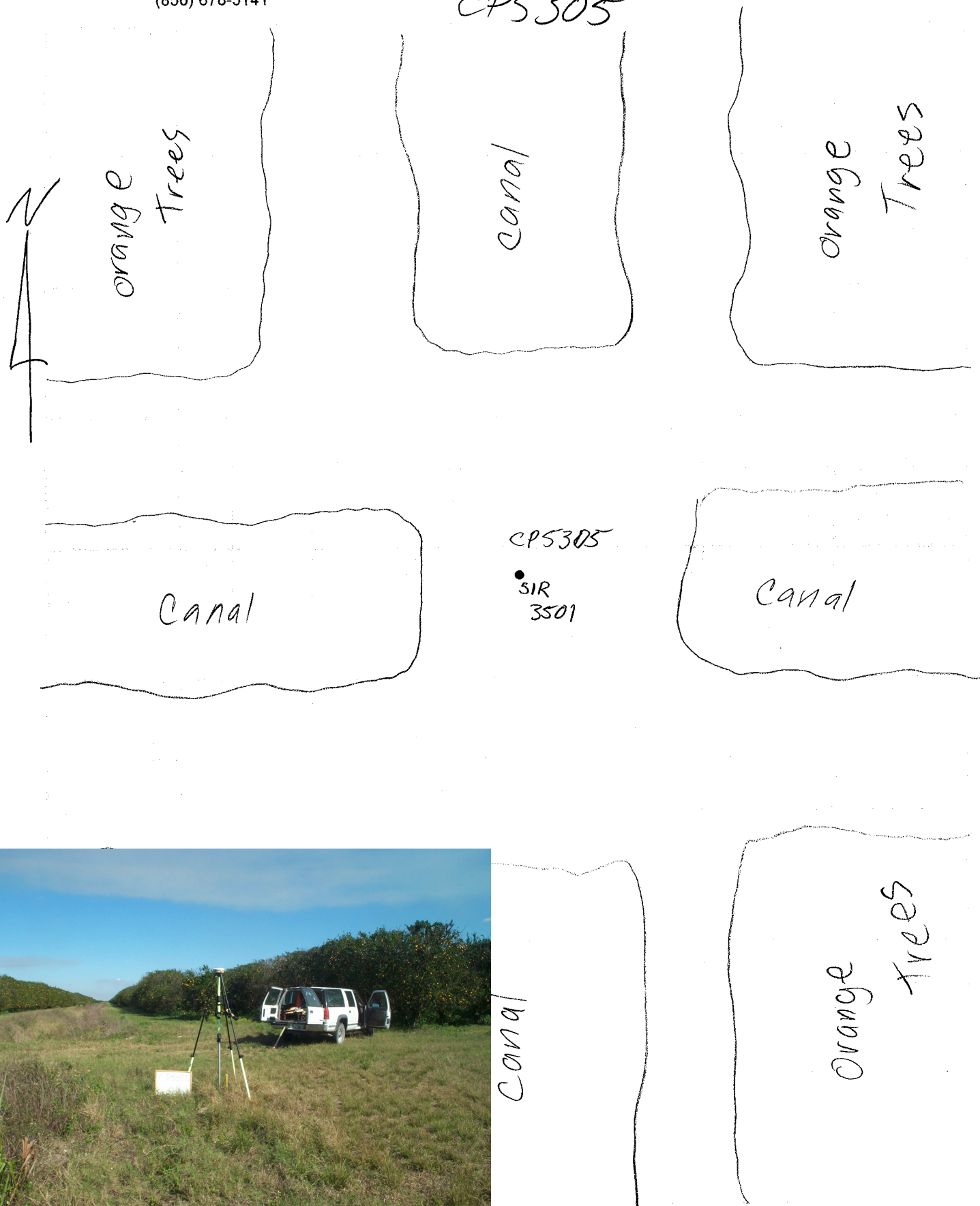
PROJECT _____ SHEET ____ OF ____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5305



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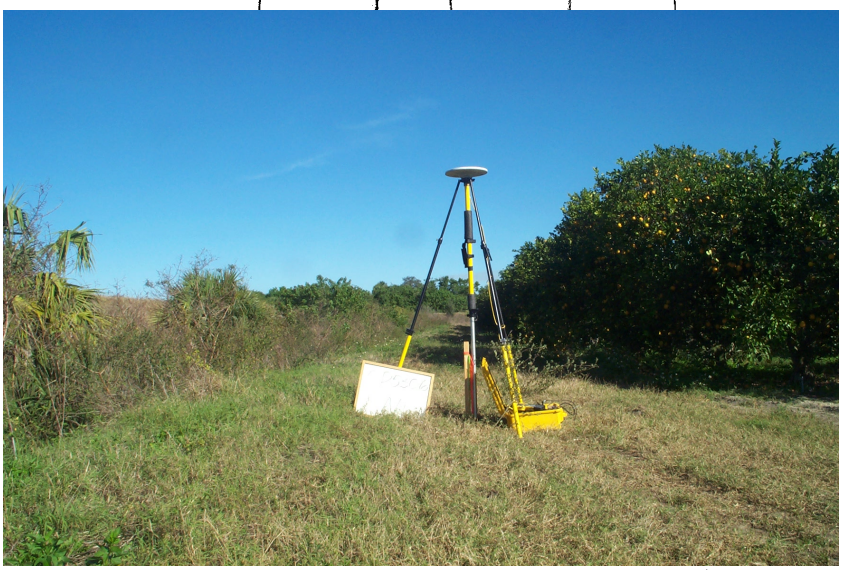
BY _____ JOB NO. _____

CP5306





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PROJECT _____ SHEET _____ OF _____

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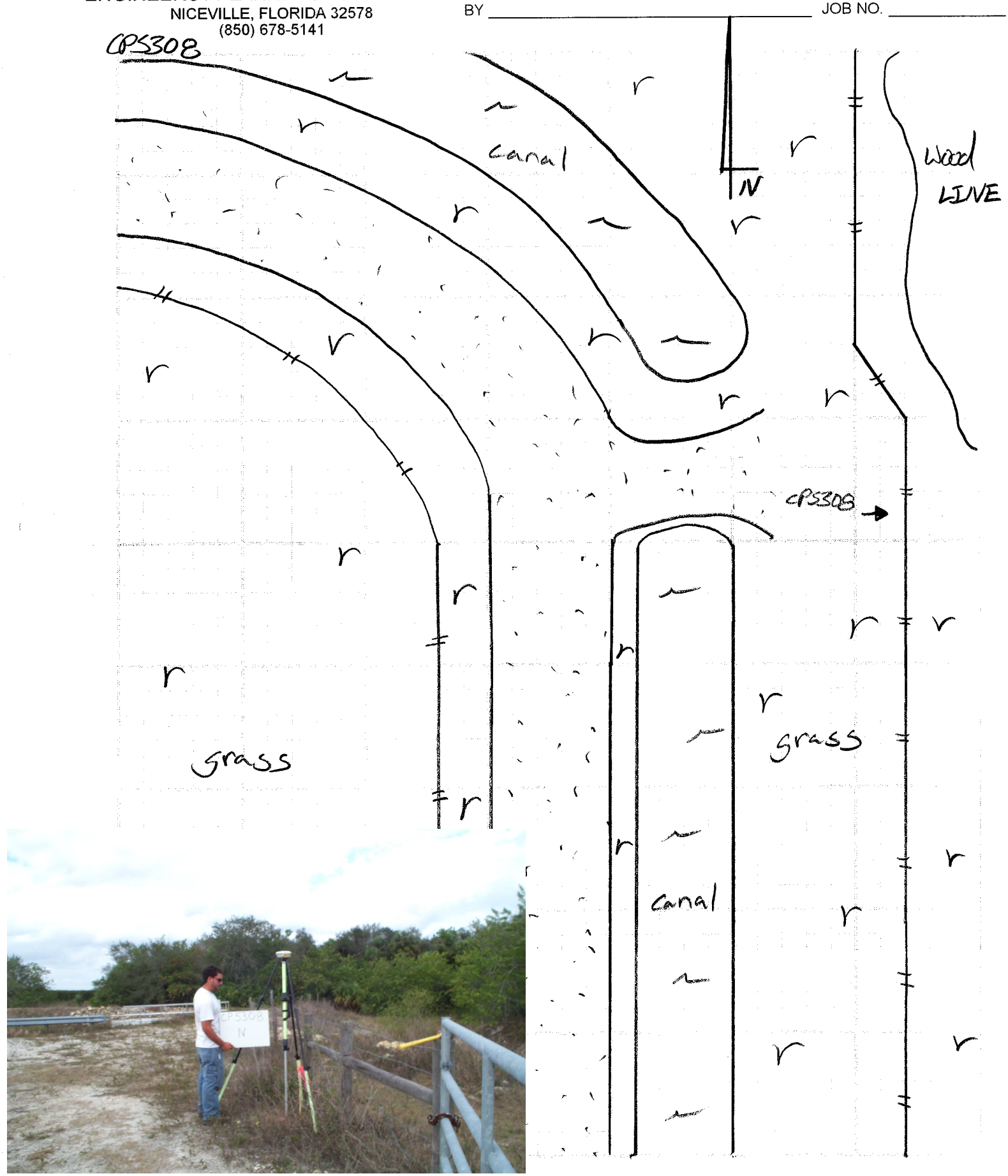

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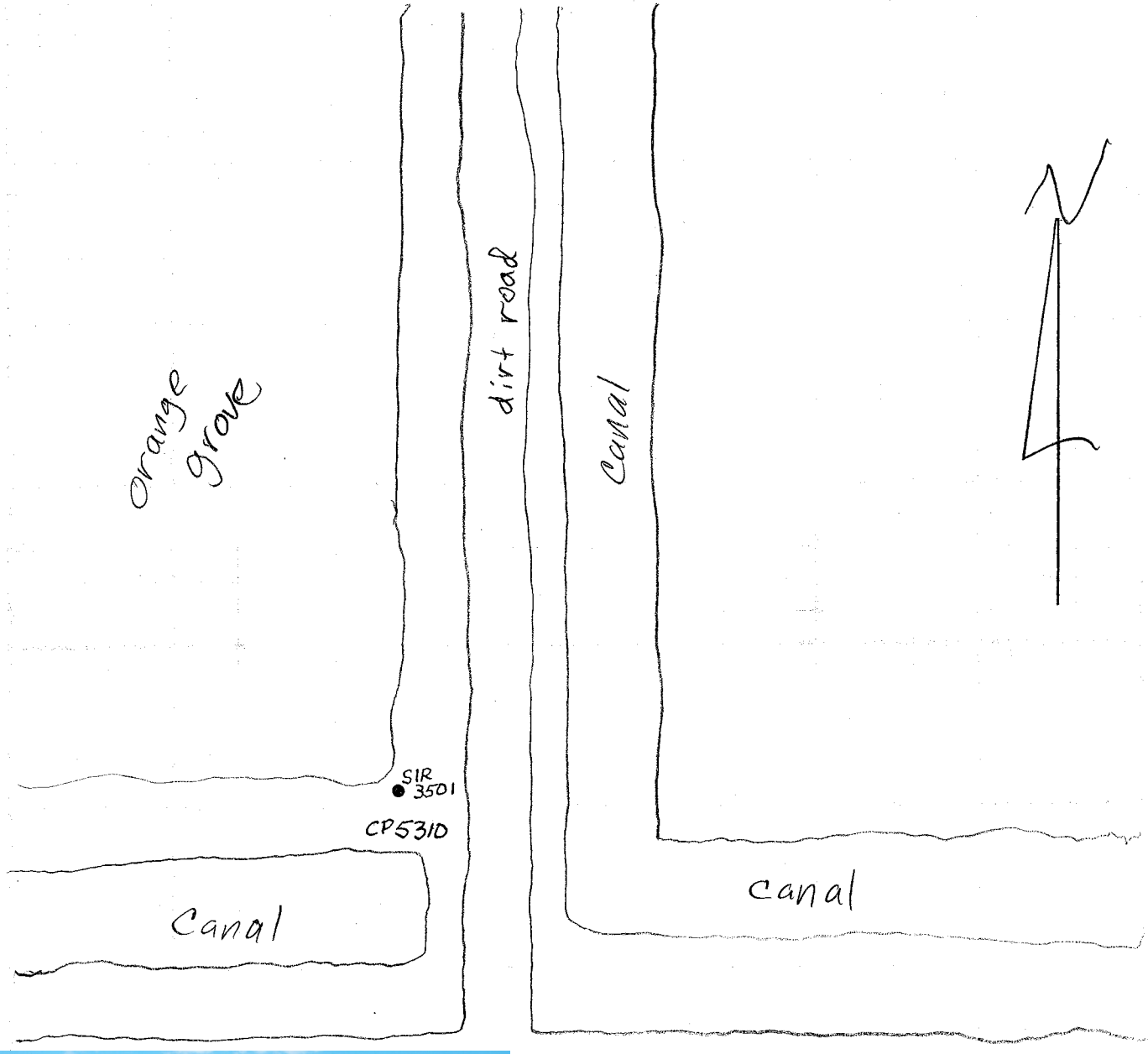
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5310





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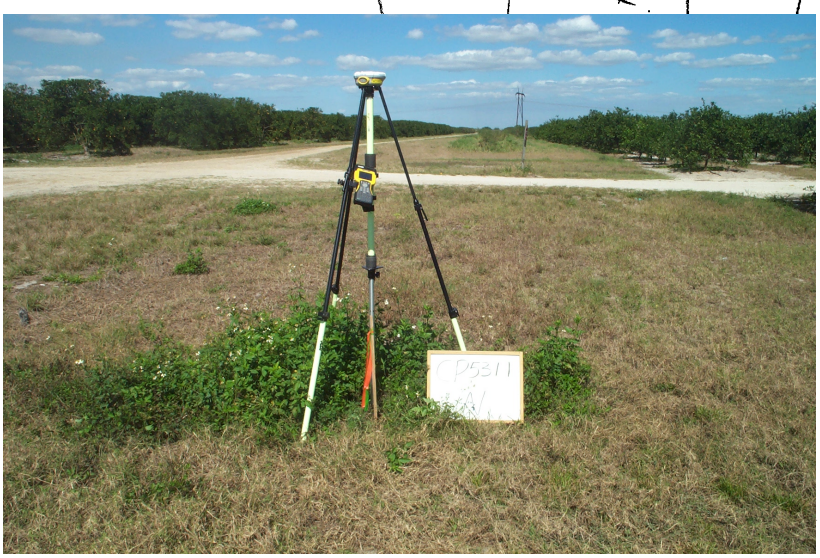

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(850) 678-5141

PR

SU

BY



CP 5312

N

TALL Brush

833

CP5312

Orange Grove

canal

Grass FIELD

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT

SUBJECT

BY _____



CPS313

canal

N

canal

canal

canal

canal

CPS313

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SUBJECT _____ DATE _____

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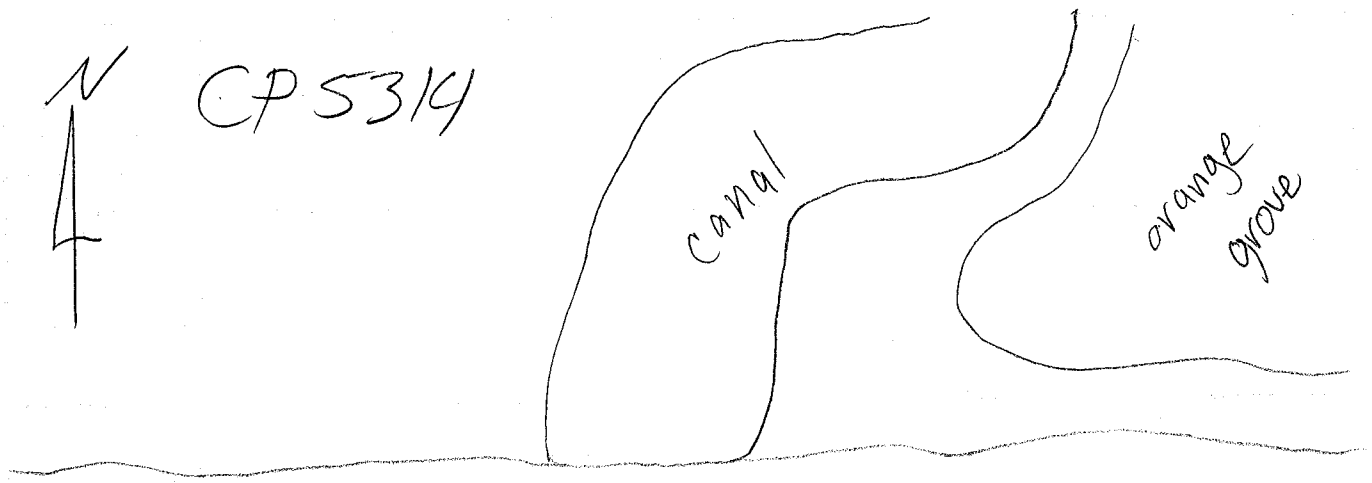

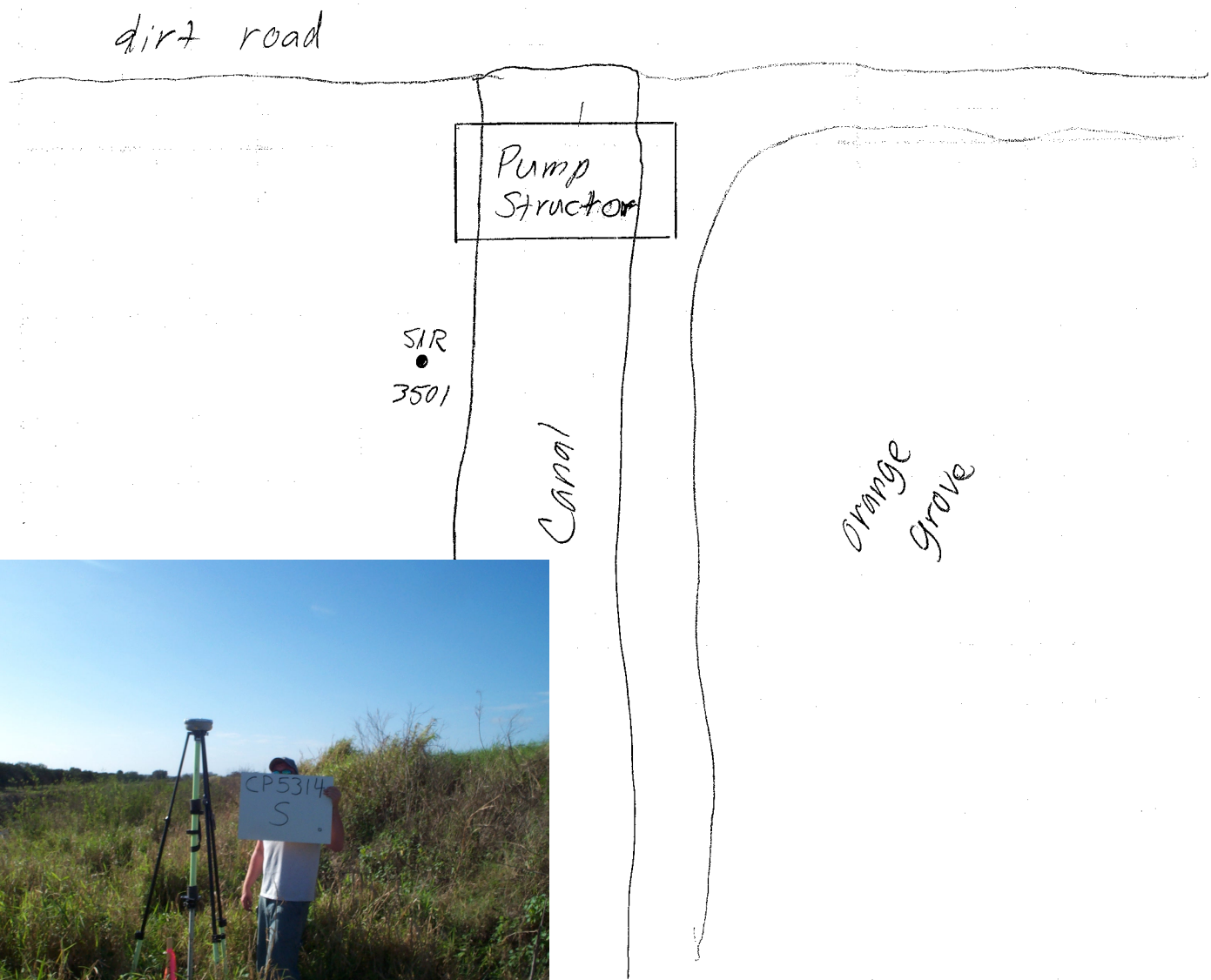

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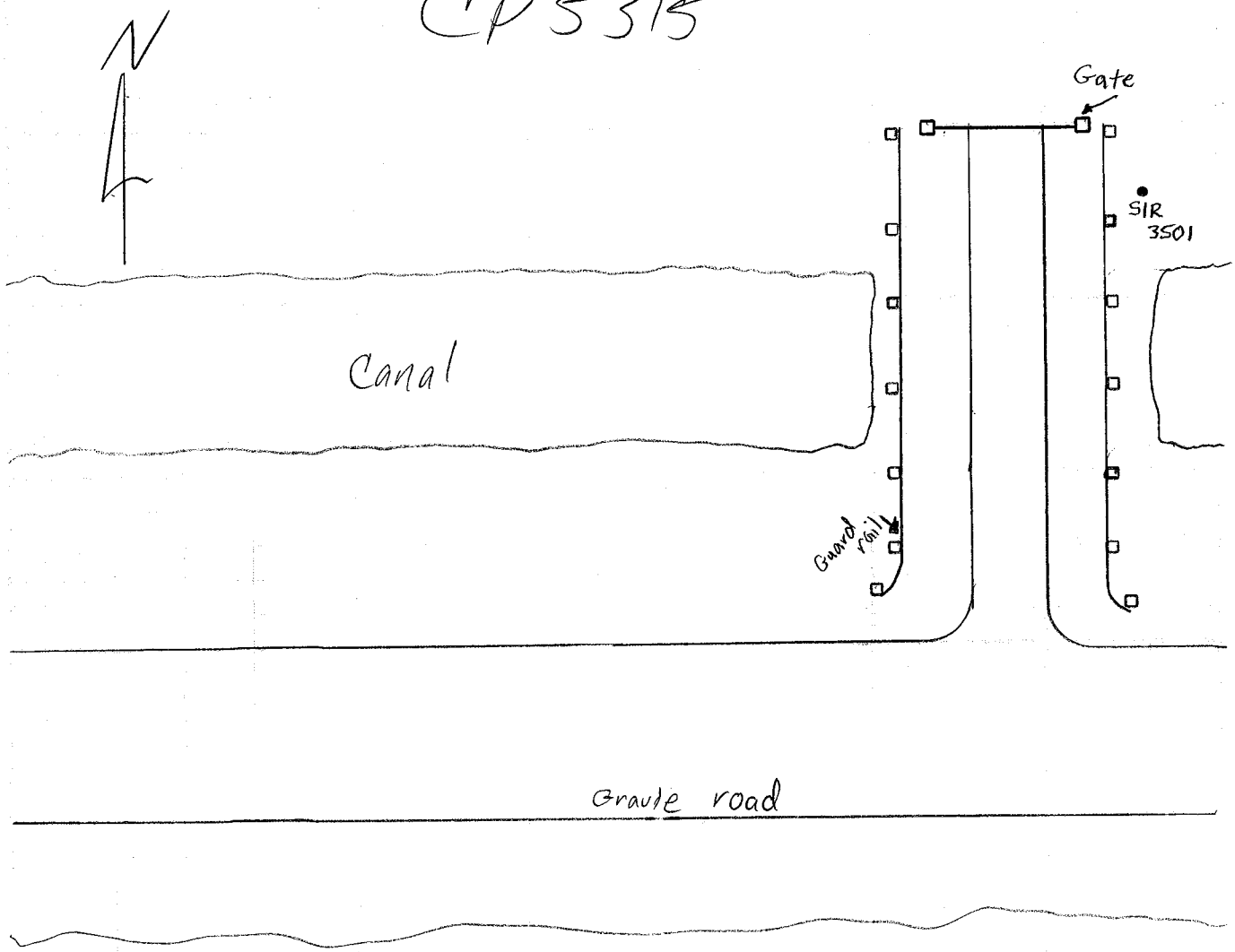
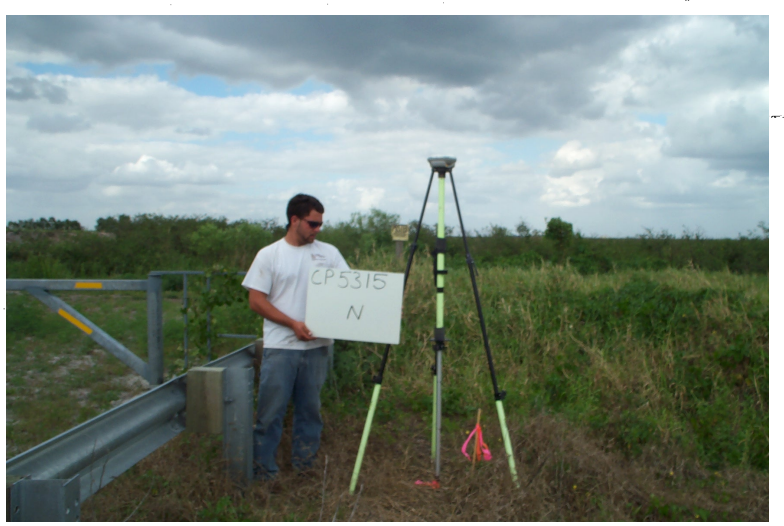
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5315





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NICEVILLE, FLORIDA 32578

(850) 678-5141

PROJECT

SUBJECT

BY



Canal

Guard Rail

grass

Site 3501
CP5316

Hwy 27

drive

grass

gray mobile home

N

CP5316

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CP5318

N

wood's

STATE RD 835

Canal

Grass

DIRT RD

CP5318

Grass

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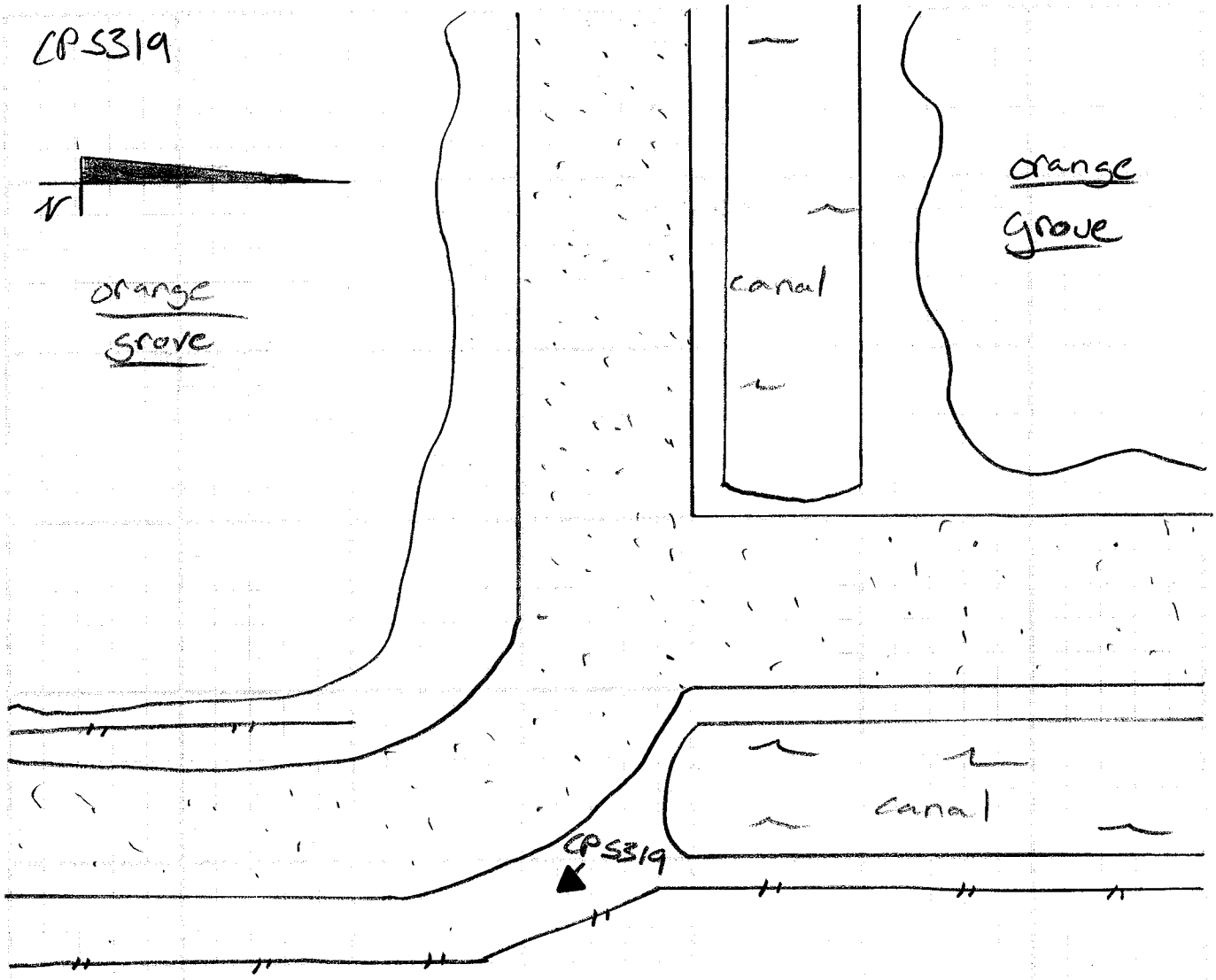
SUBJECT _____ DATE _____

BY _____ JOB NO. _____



Brush + grass



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SUBJECT _____ DATE _____

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CP5320



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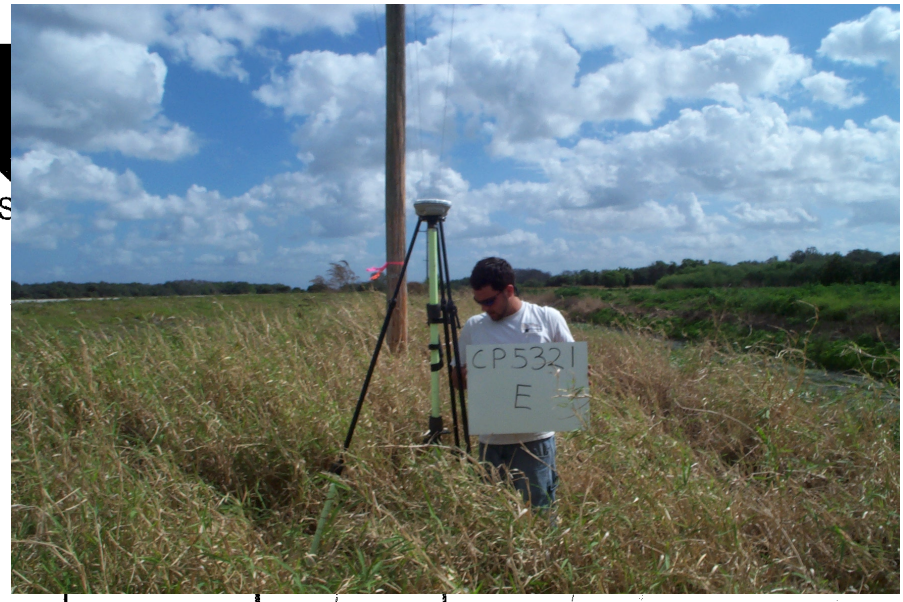

CP5321

Pond

833

CP5321

Canal

N

Orange groves

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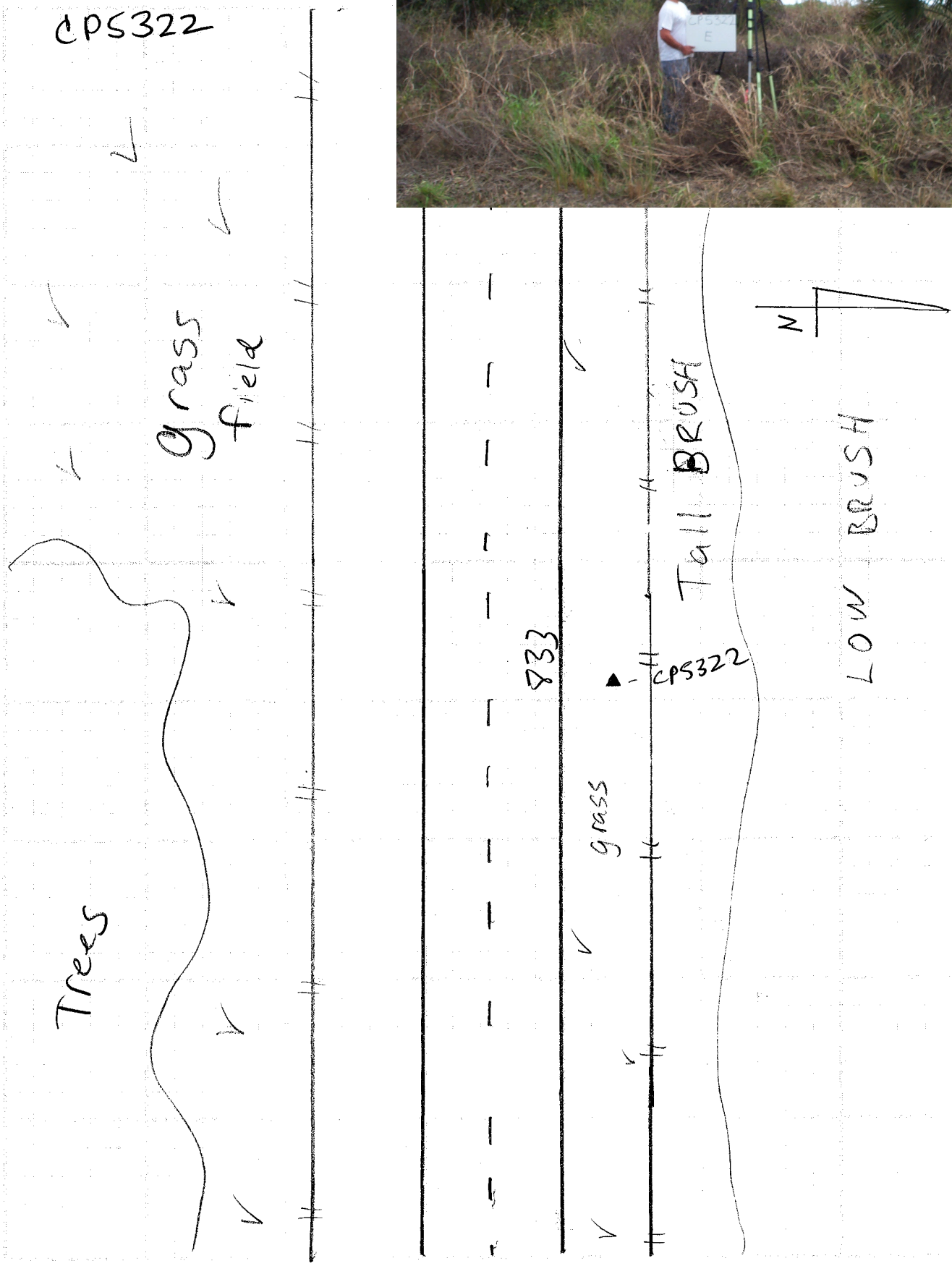

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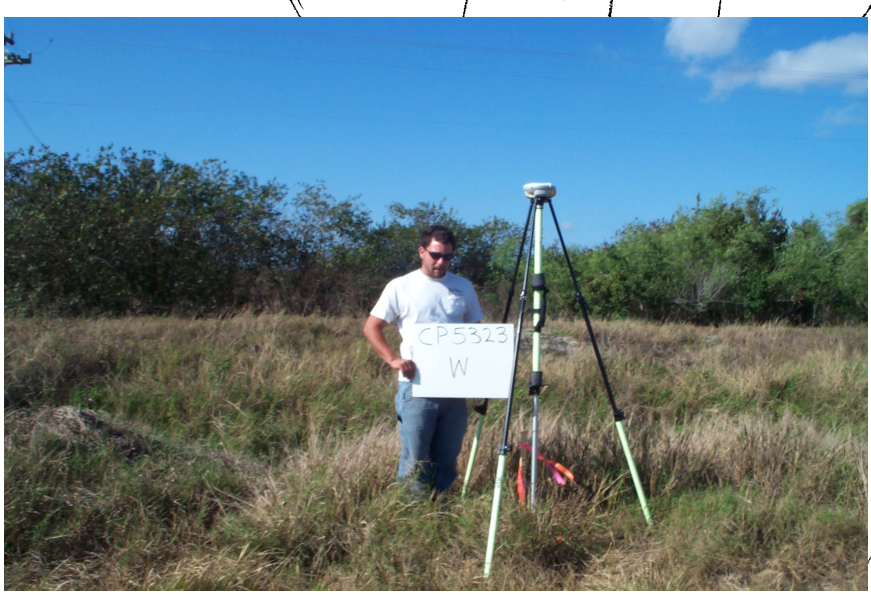

CP5323

N

Canal

SIR
3501

dirt Road

orange grove

dirt Road

Orange grove

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NICEVILLE, FLORIDA 32578
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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

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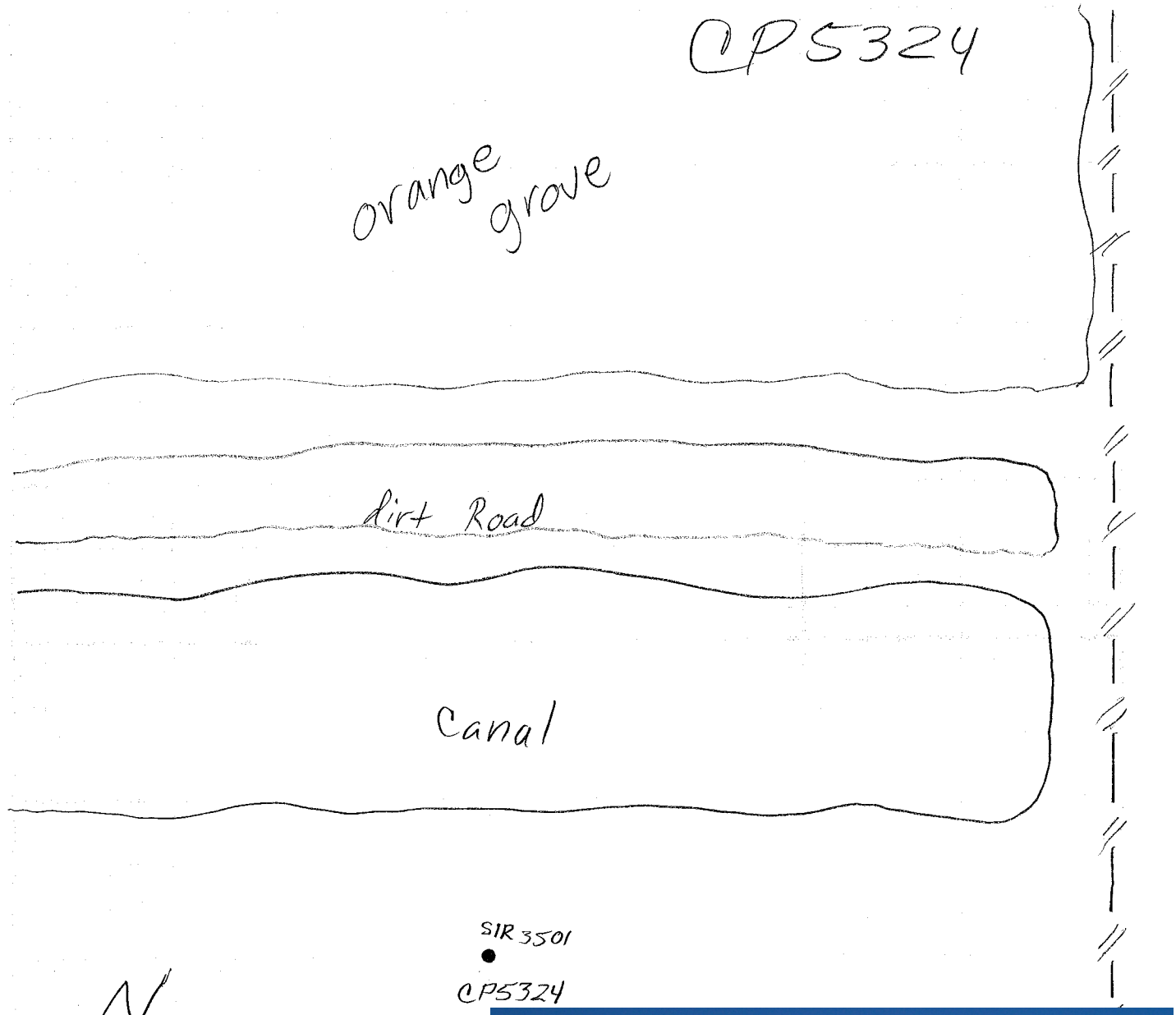



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PROJECT _____ SHEET _____ OF _____

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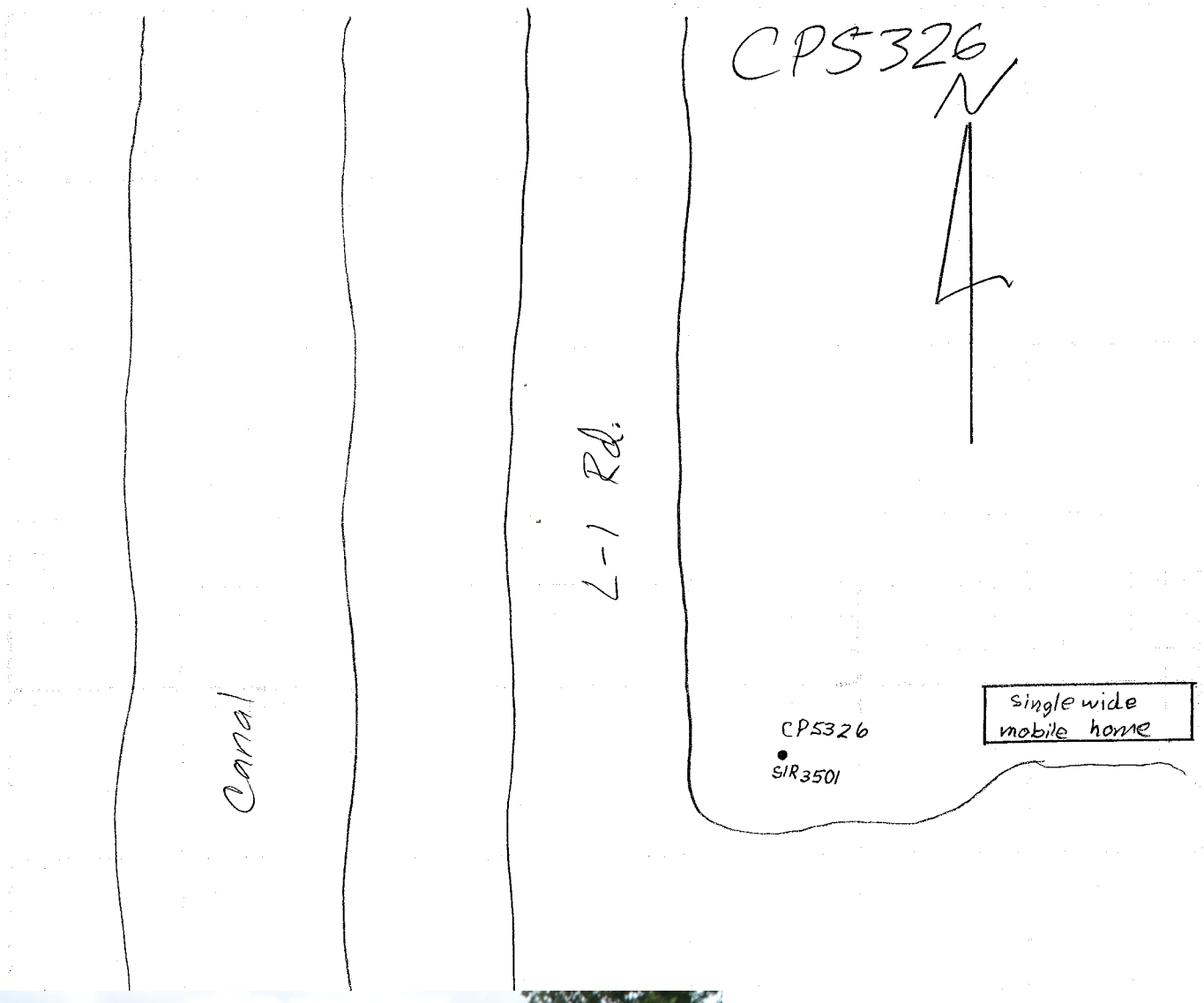

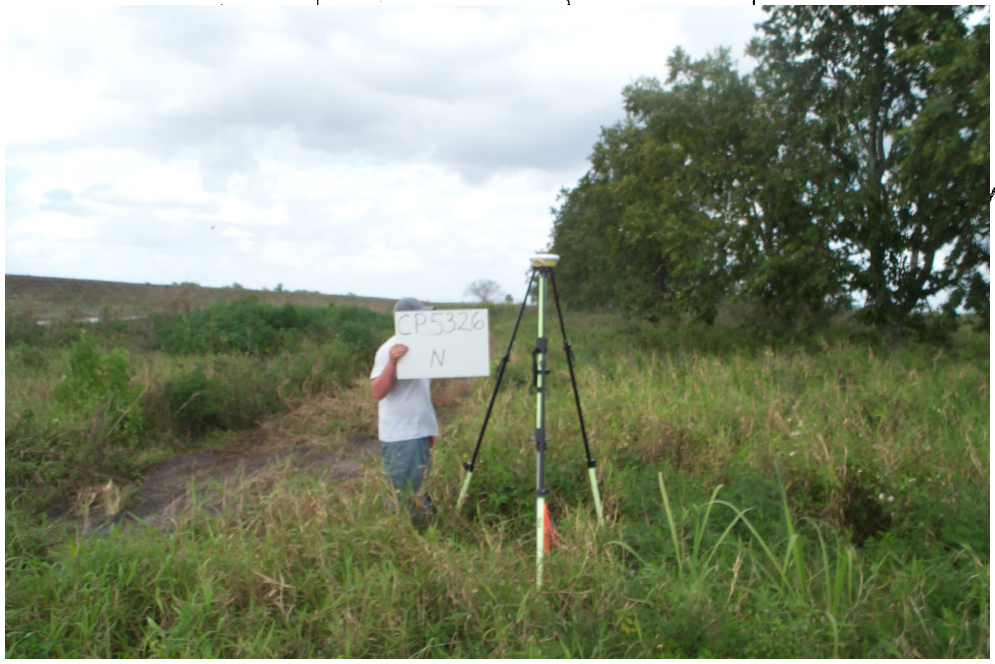

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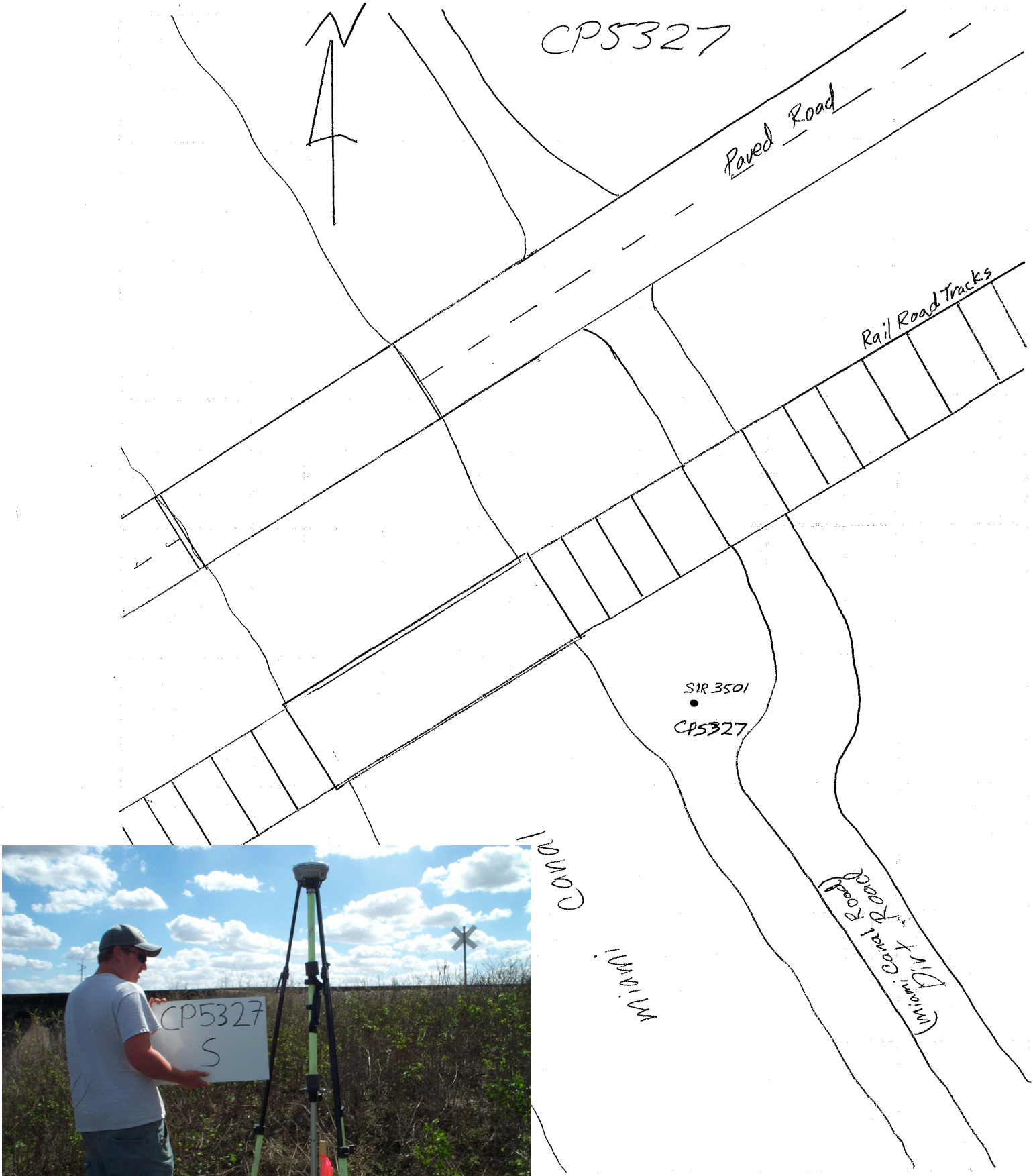

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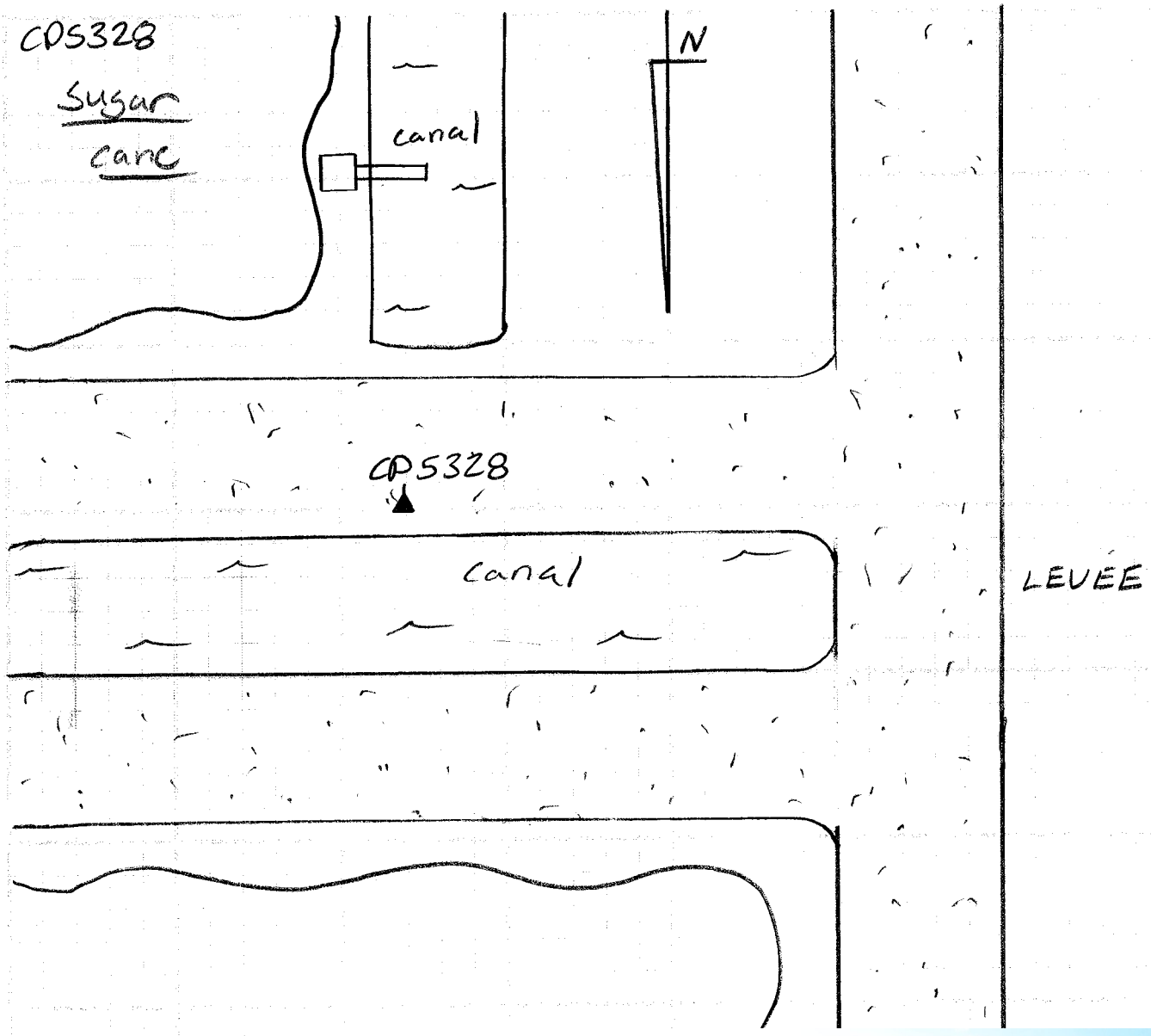

DIRT
FIELD



GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT ___

SUBJECT ___

BY _____



CP5329

N

Wood's

CP5329

Wood's

RV
PARK

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

(850) 678-5141

PROJECT _____

SUBJECT _____

BY _____



CP5330

N

SIR 3501

dirt Rd.

Hill Grade Rd.

Canal

GUSTIN, COTHERN & TUCKER, INC.
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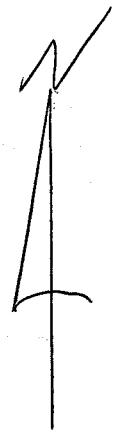
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5331



Veg. Planted

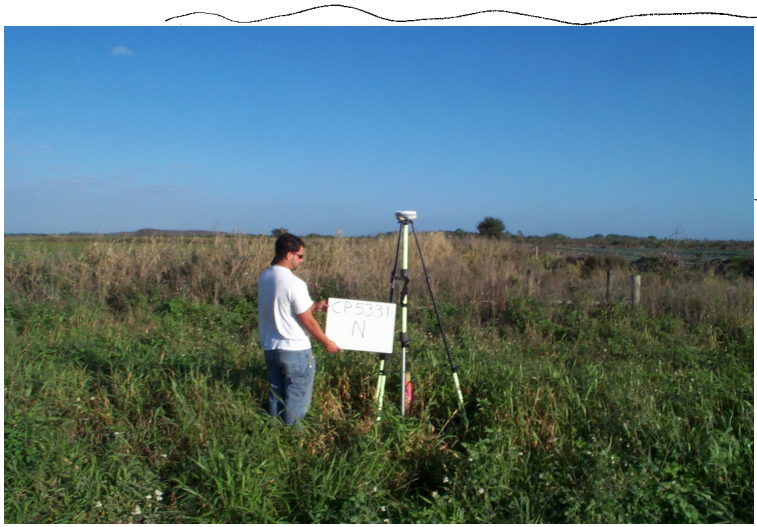
dirt road

Veg. Planted

CP5331
SIR 3501

Hill Grade Rd.

Gravle Road



Canal

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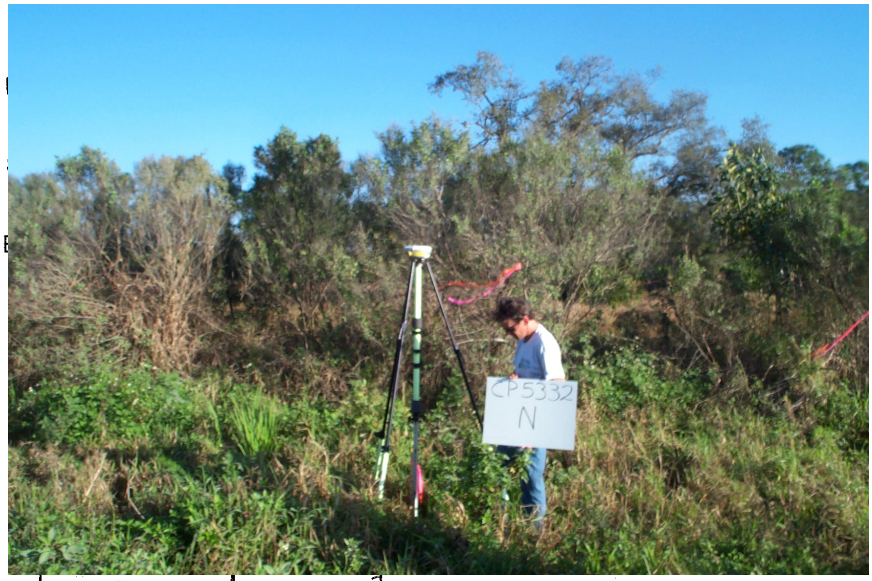
(850) 678-5141



CP5332

Brush

Canal

CP5332

grass field

Canal

Brush

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SUBJECT _____ DATE _____

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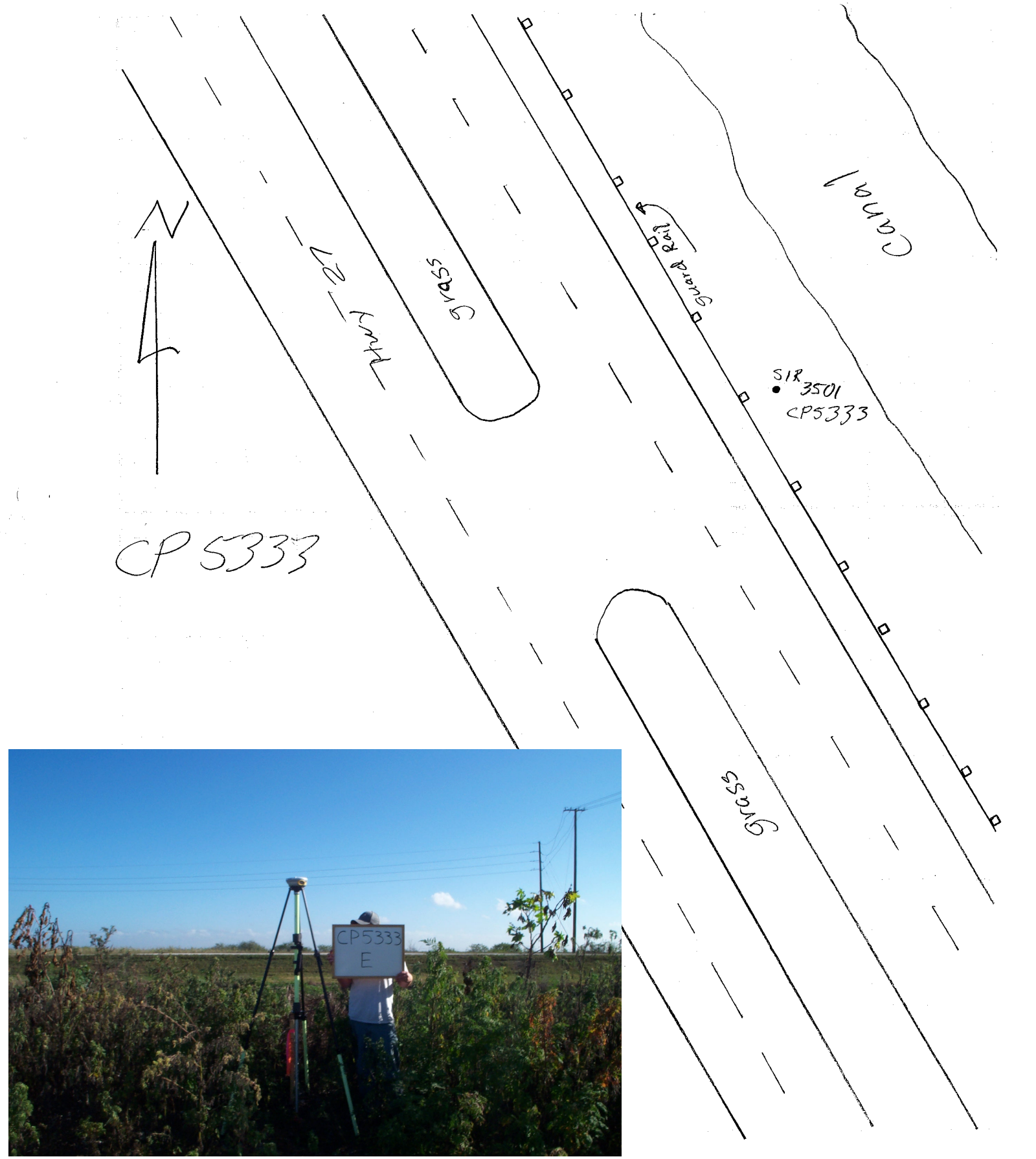

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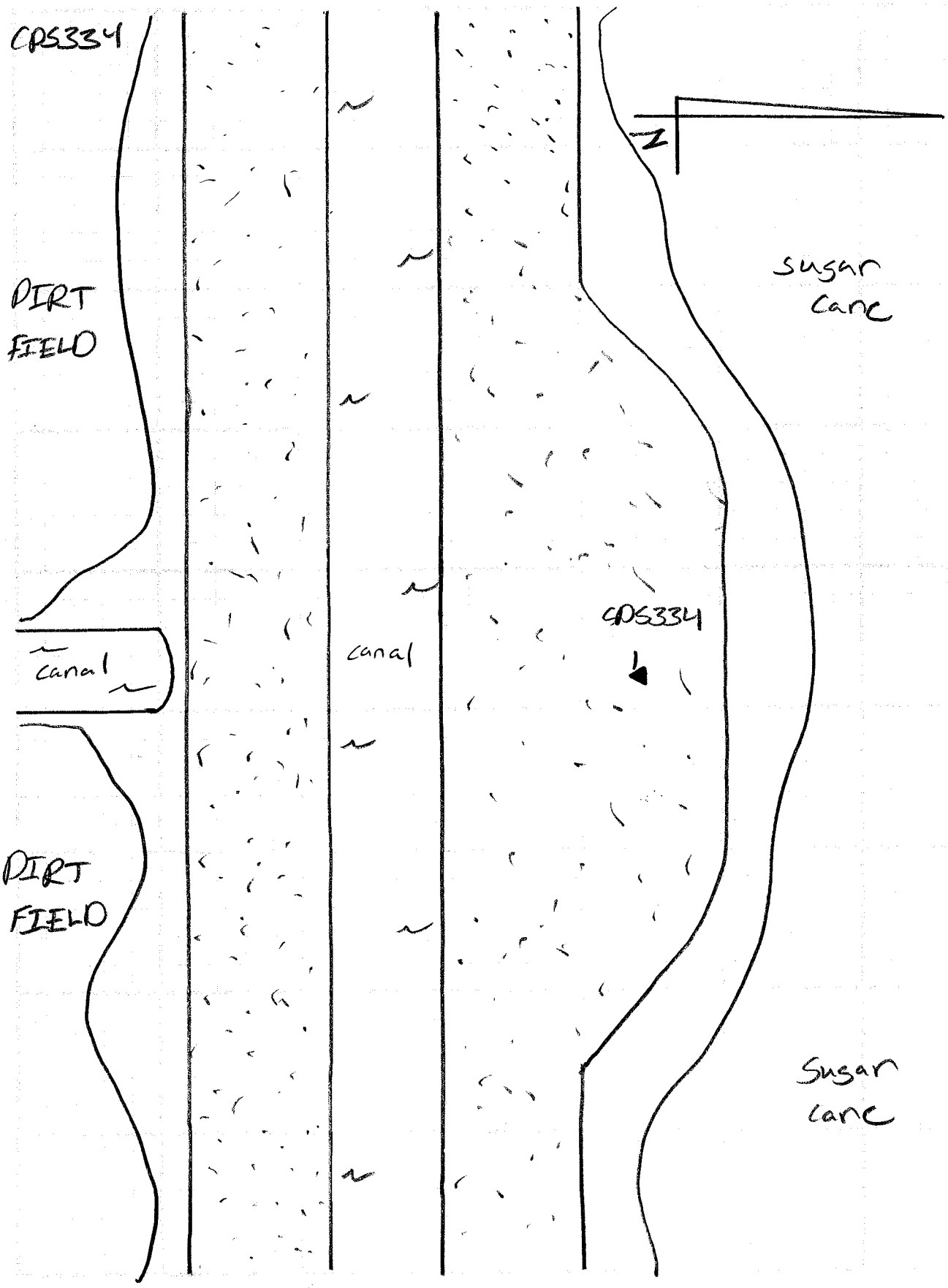

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NICEVILLE, FLORIDA 32578
(850) 678-5141



CP5336

N

WET LANDS

canal

CP5336

Dirt RD

DIRT RD

WETLANDS

GUSTIN, COTHERN & TUCKER, INC.

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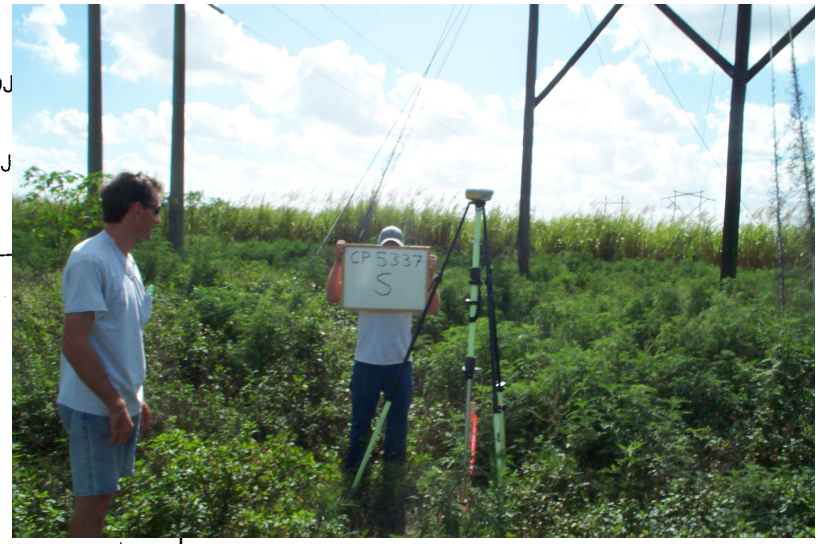
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJ

SUBJ

BY



CP5337

N

Sam Senter

Hwy. 880

Canal

dirt drive

Canal

CP5337

SIR 3501

Cane Fields

GUSTIN, COTHERN & TUCKER, INC.
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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



N

canal

1 Story white Block Pump house

canal

Duda Rd.

CP5338

canal

dirt road

SIR3501

CP5338

canal

dirt road

cane Fields

GUSTIN, COTHERN & TUCKER, INC.
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CP5339

N

Hwy 27

Guard Rail

Canal

SIR 3501

CP 5339

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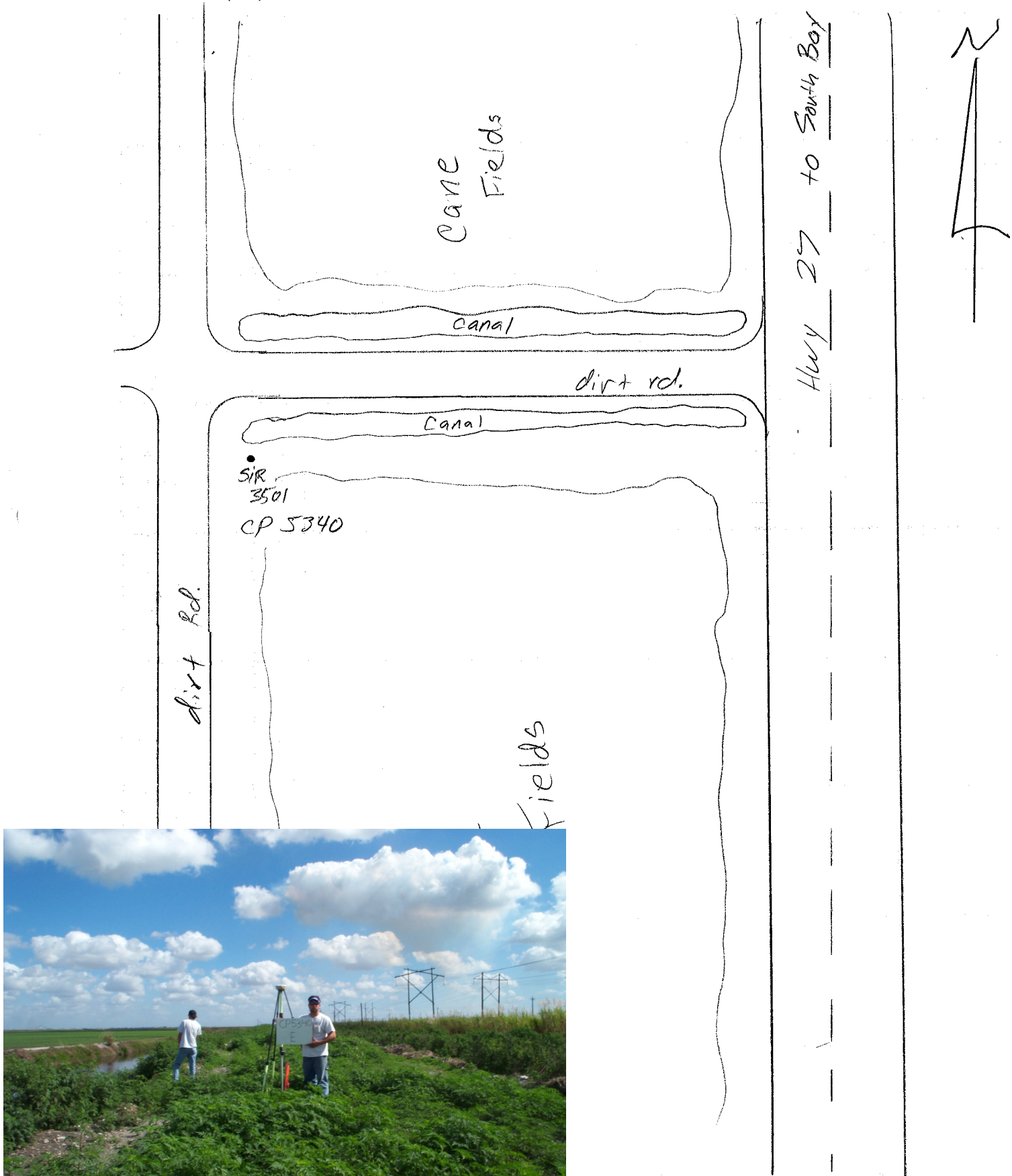
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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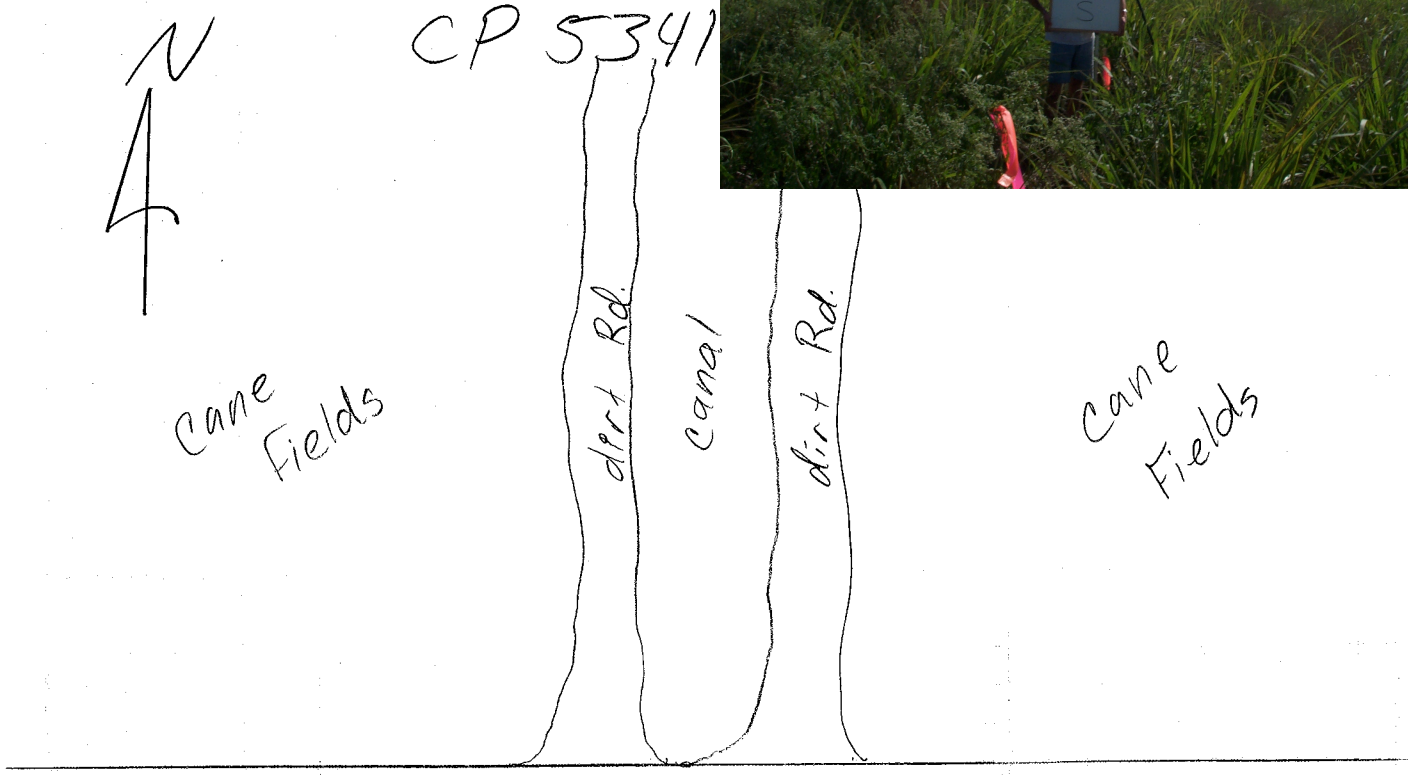
PROJECT _____

SUBJECT _____

BY _____





Canal

SIR3501
CP5341
tall grassy area

Canal

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PR

SU

BY

CP5342



Sugar Cane Field

N

U.S. 98

Grass

Brush

Lake

▲-CP5342

Canal

GUSTIN, COTHERN & TUCKER, INC.
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(850) 678-5141

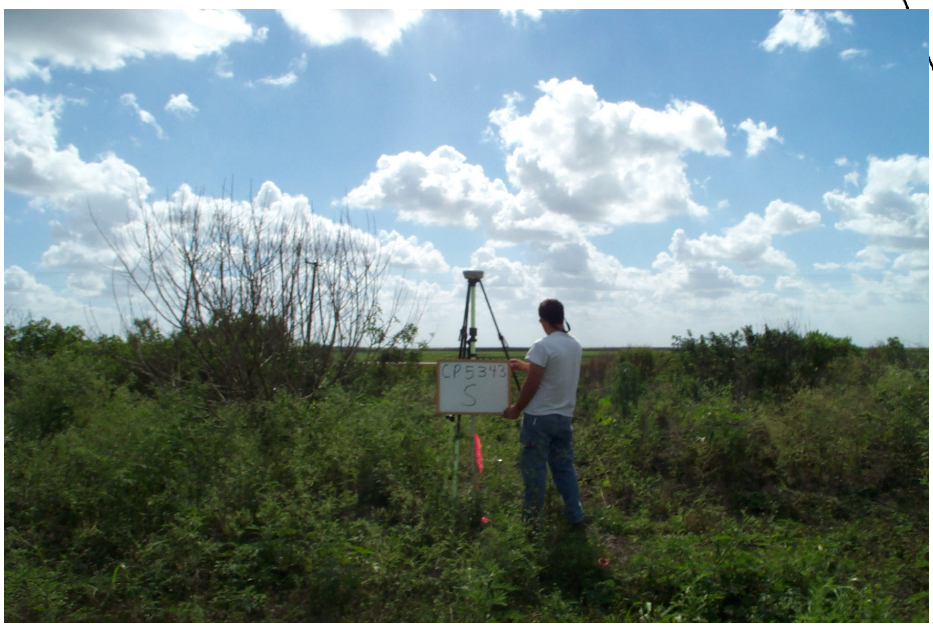
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5343

N



Hwy 98

SIR 3501
• CP5343

Canal

2 Story metal Pump house

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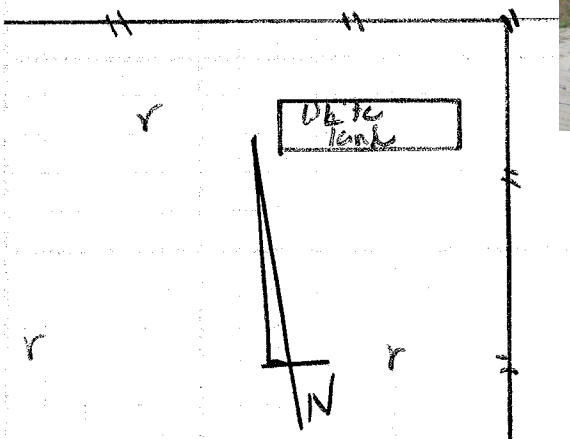
CP5345



grass

grass

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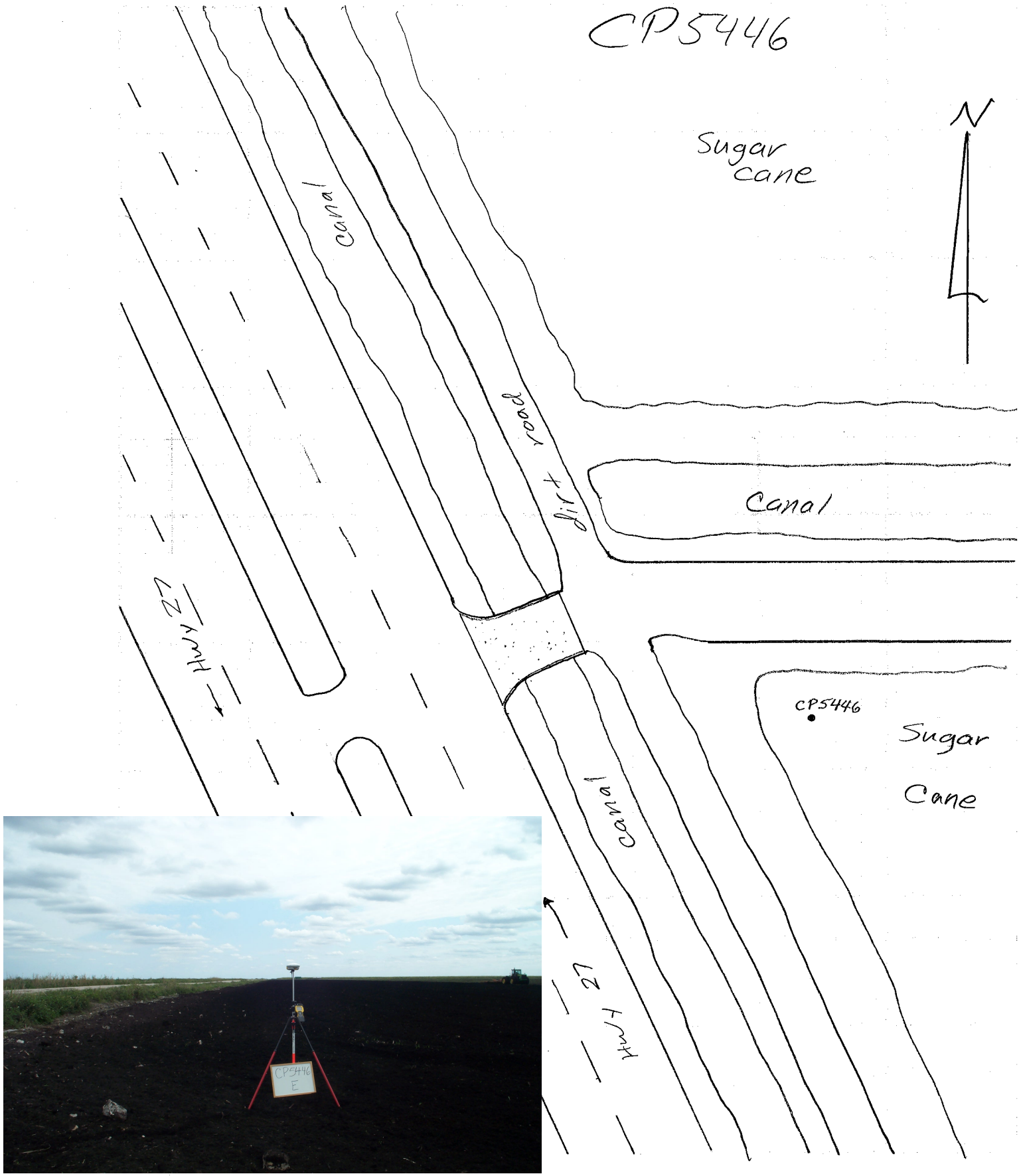
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5446



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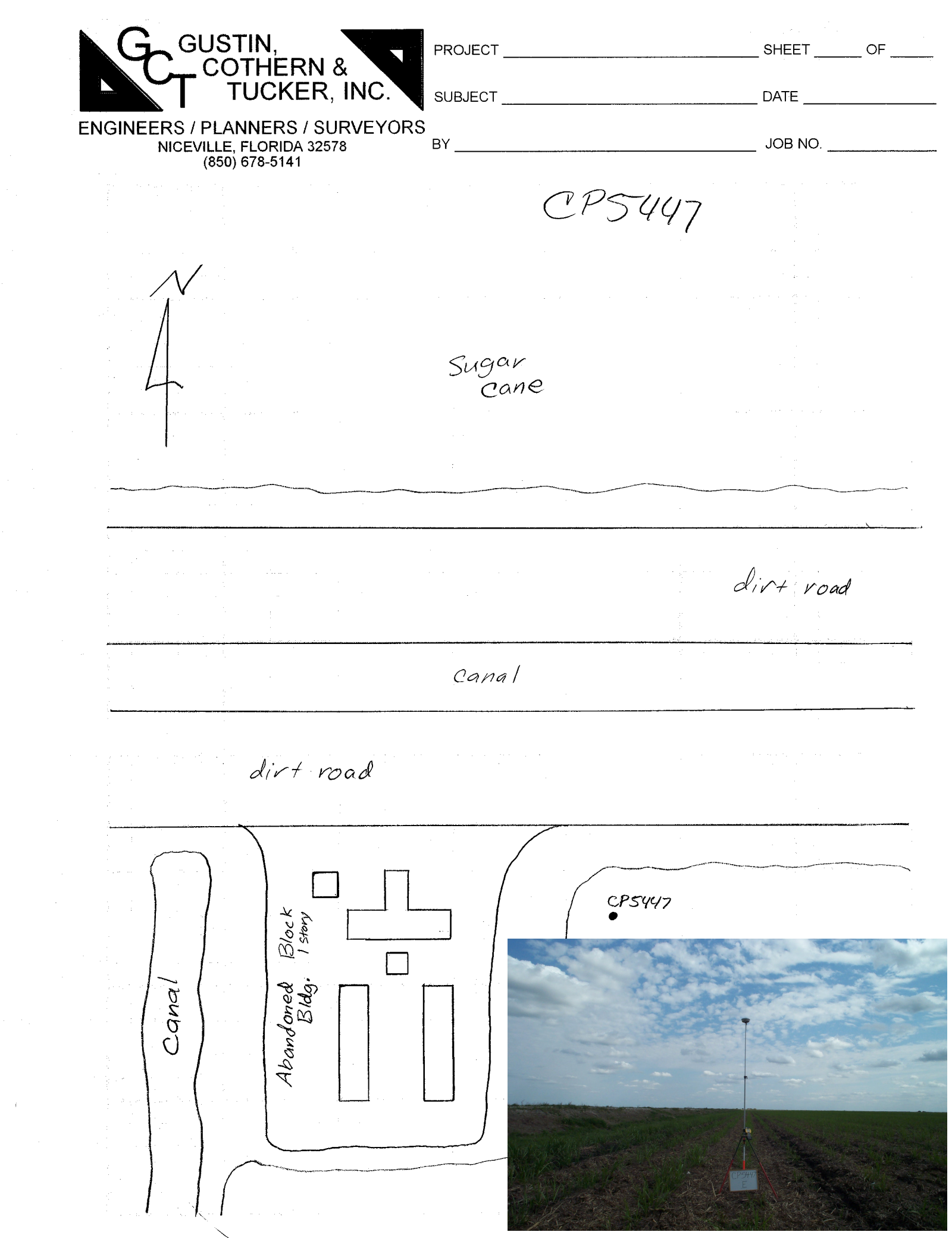
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5447



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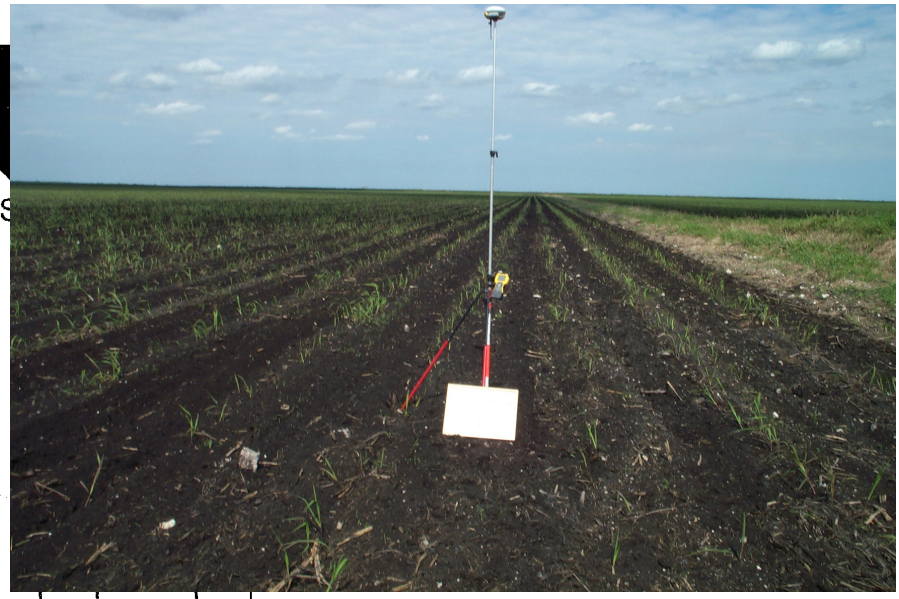
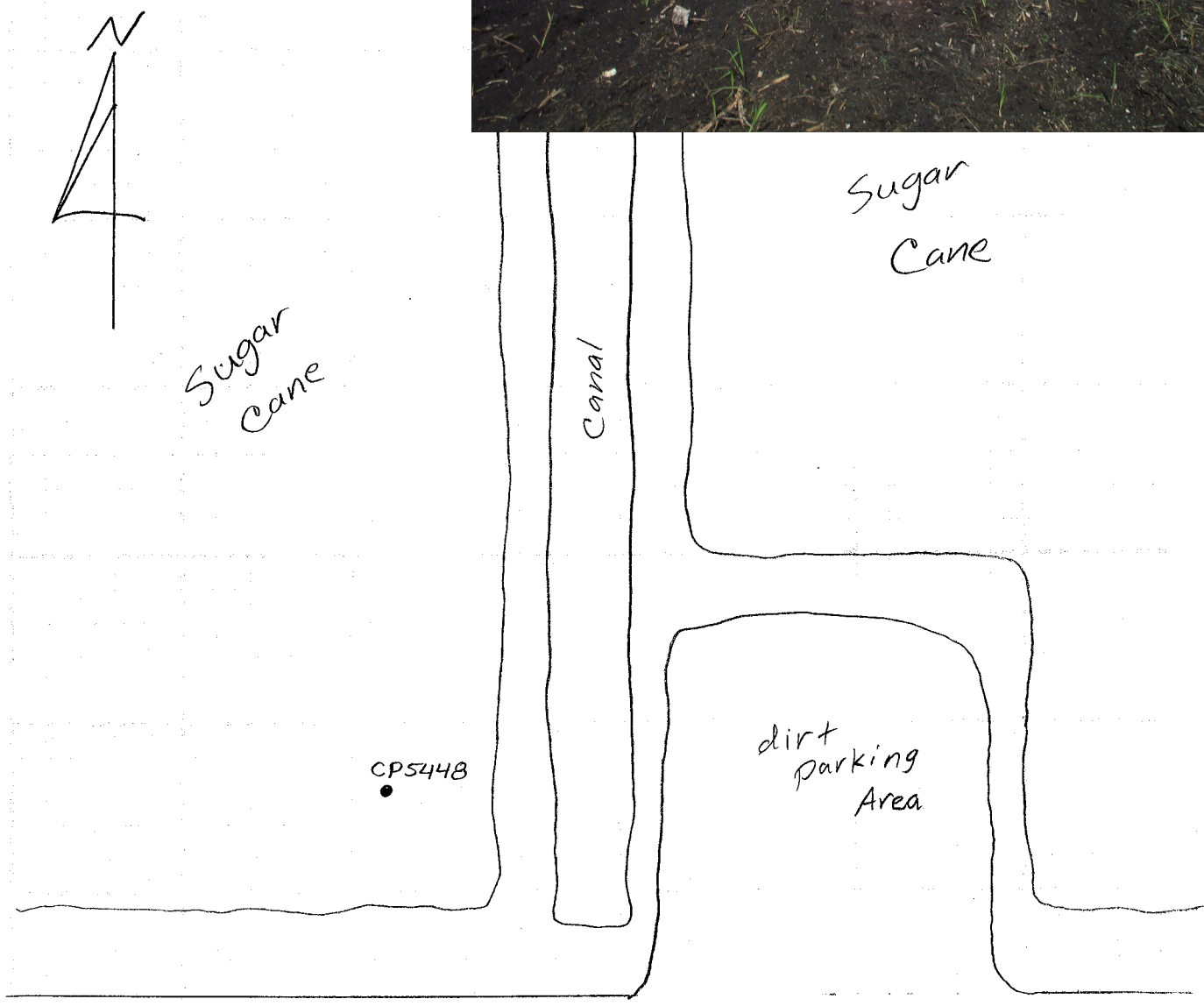
CPS448





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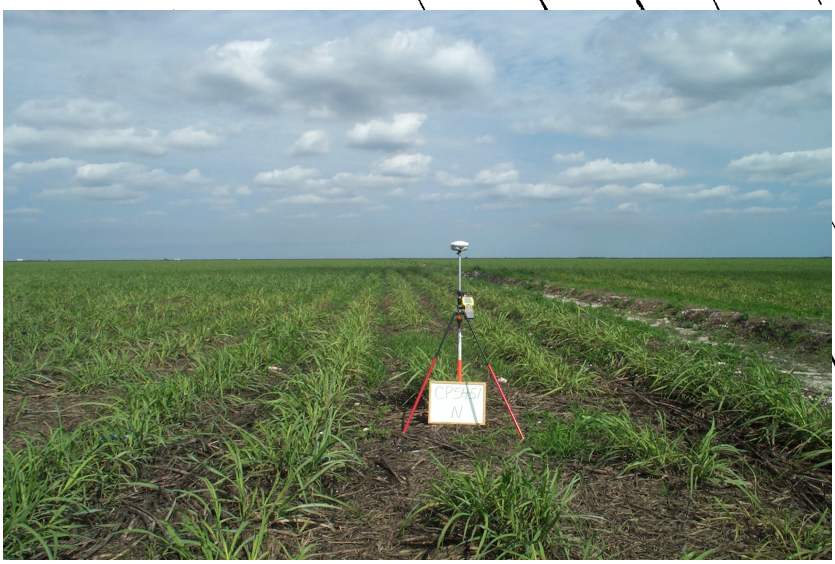
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5451



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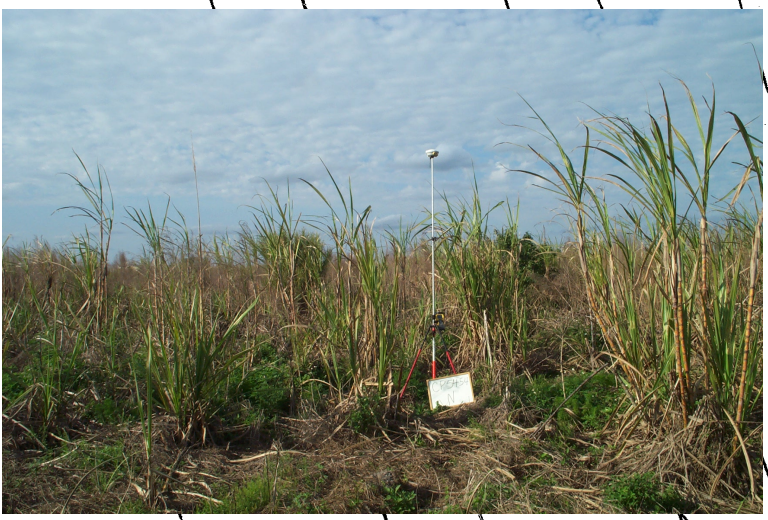
BY _____ JOB NO. _____

CP5454



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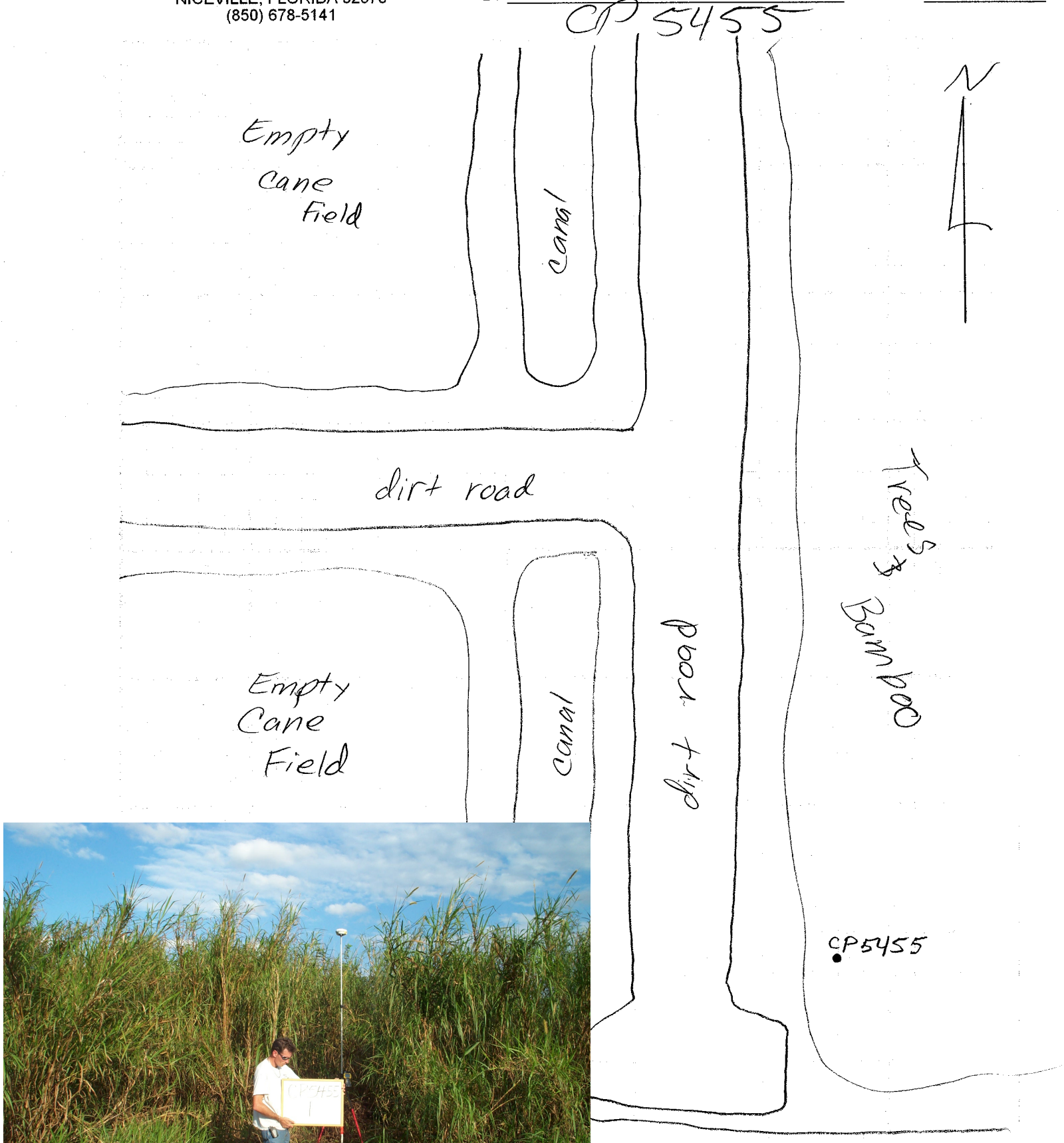

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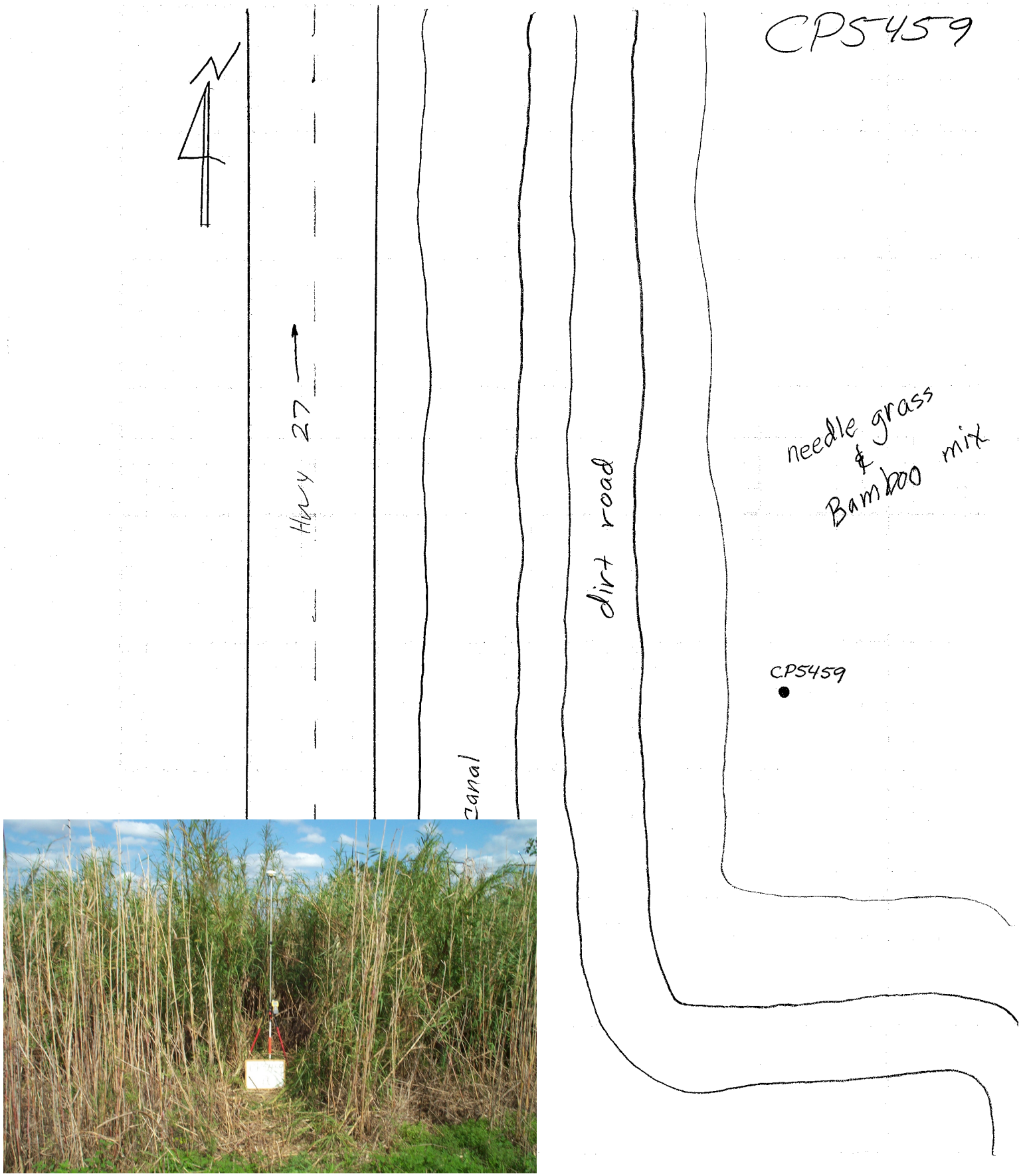
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5459



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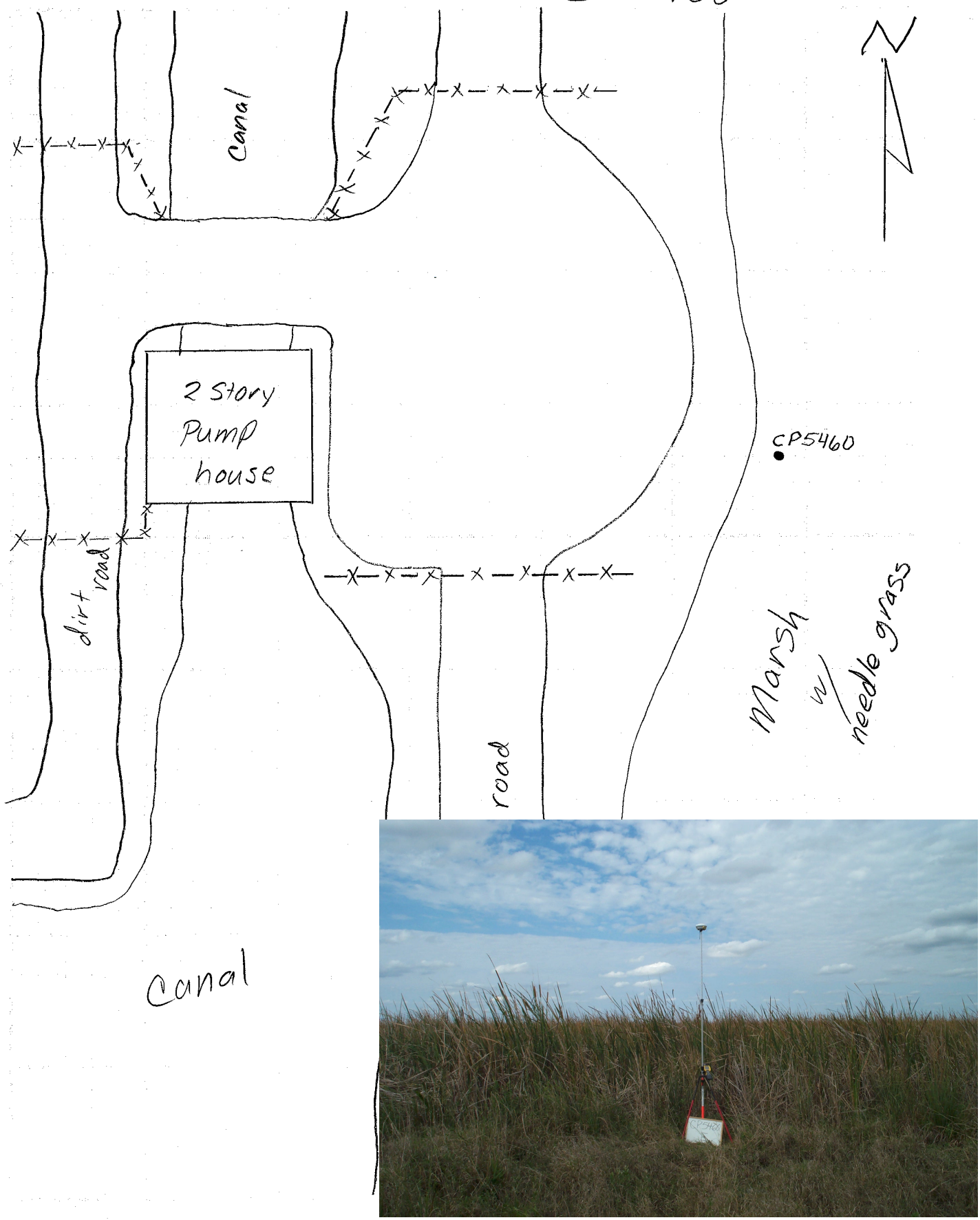
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5460



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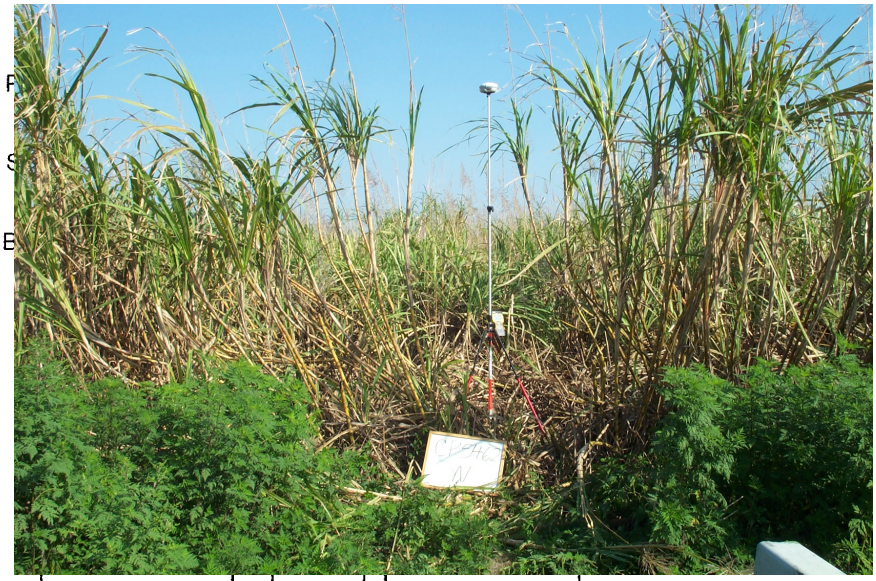

CP5462

N

Sugar cane

dirt road

canal

dirt road

CP5462

canal

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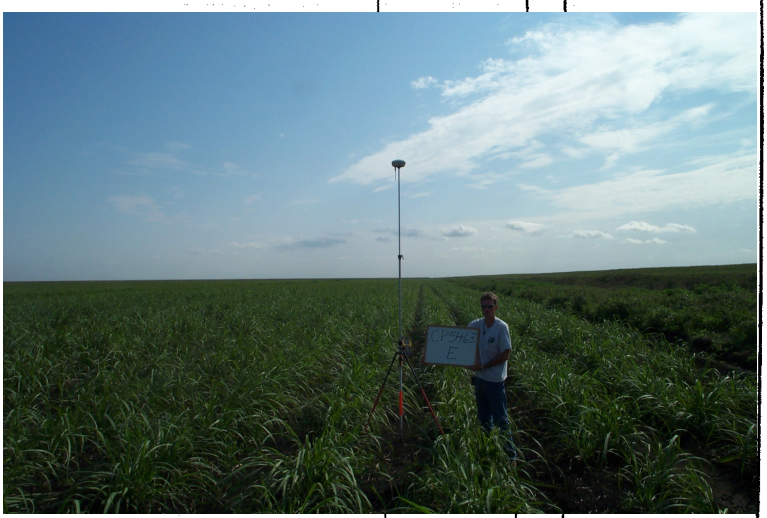
SUBJECT _____ DATE _____

BY _____ JOB NO. _____



CP 5463

dirt road

canal

dirt road

Sugar cane

CP5463

Canal

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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5464

N

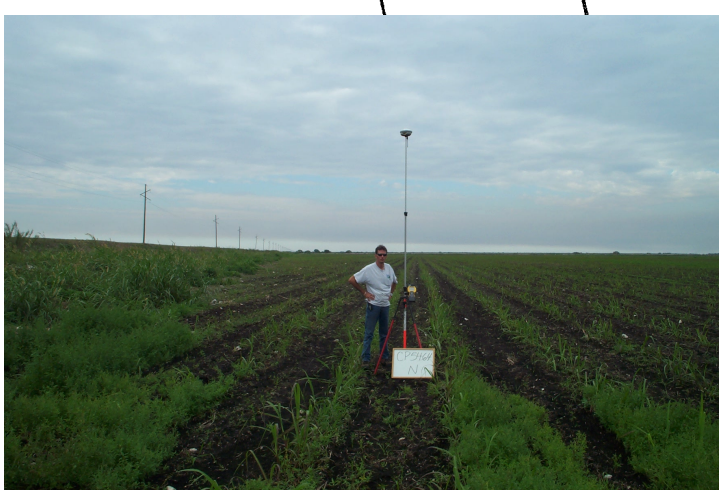
Sugar Cane

Lime Stone road

Miami canal

canal

CP5464



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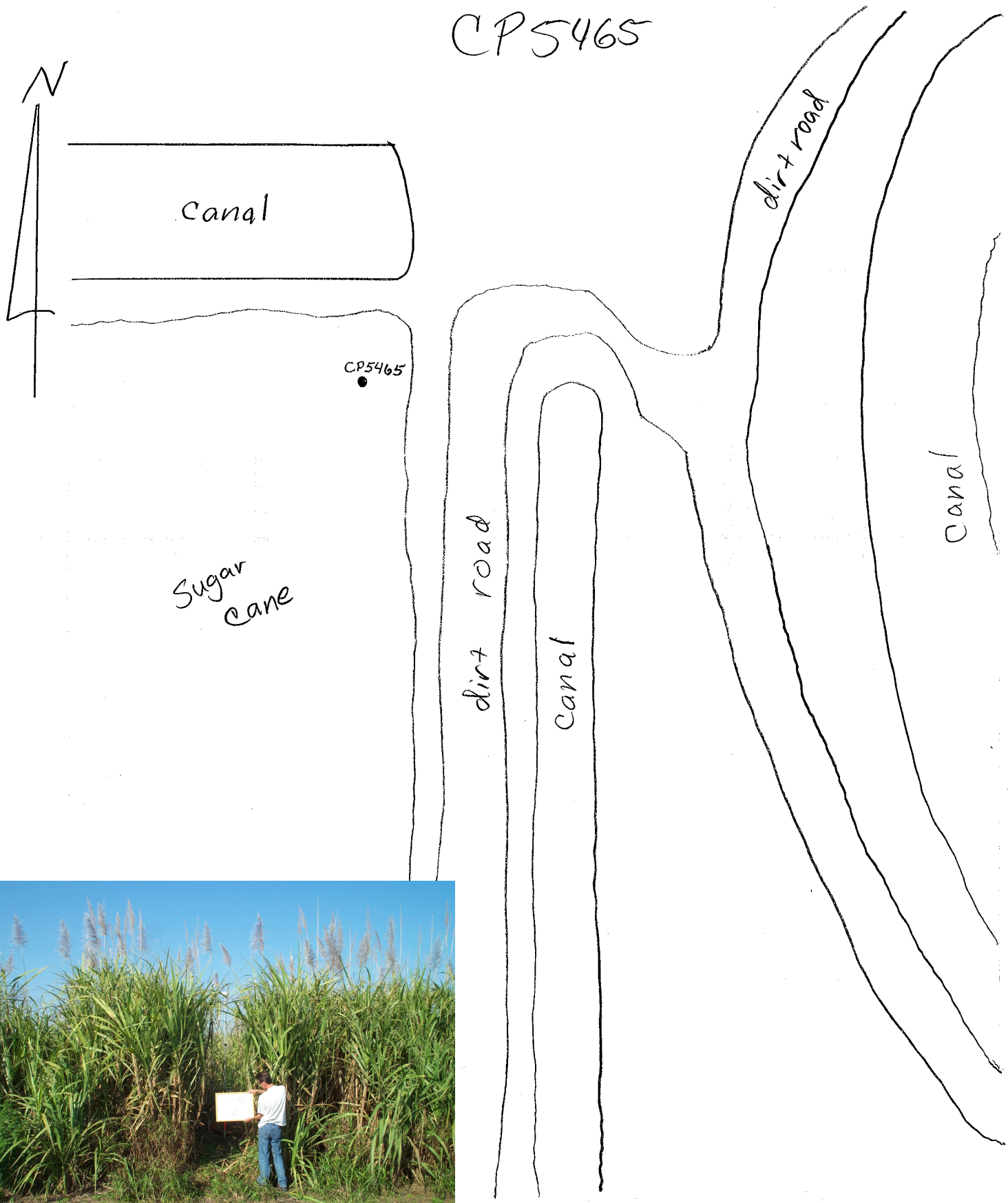
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5465



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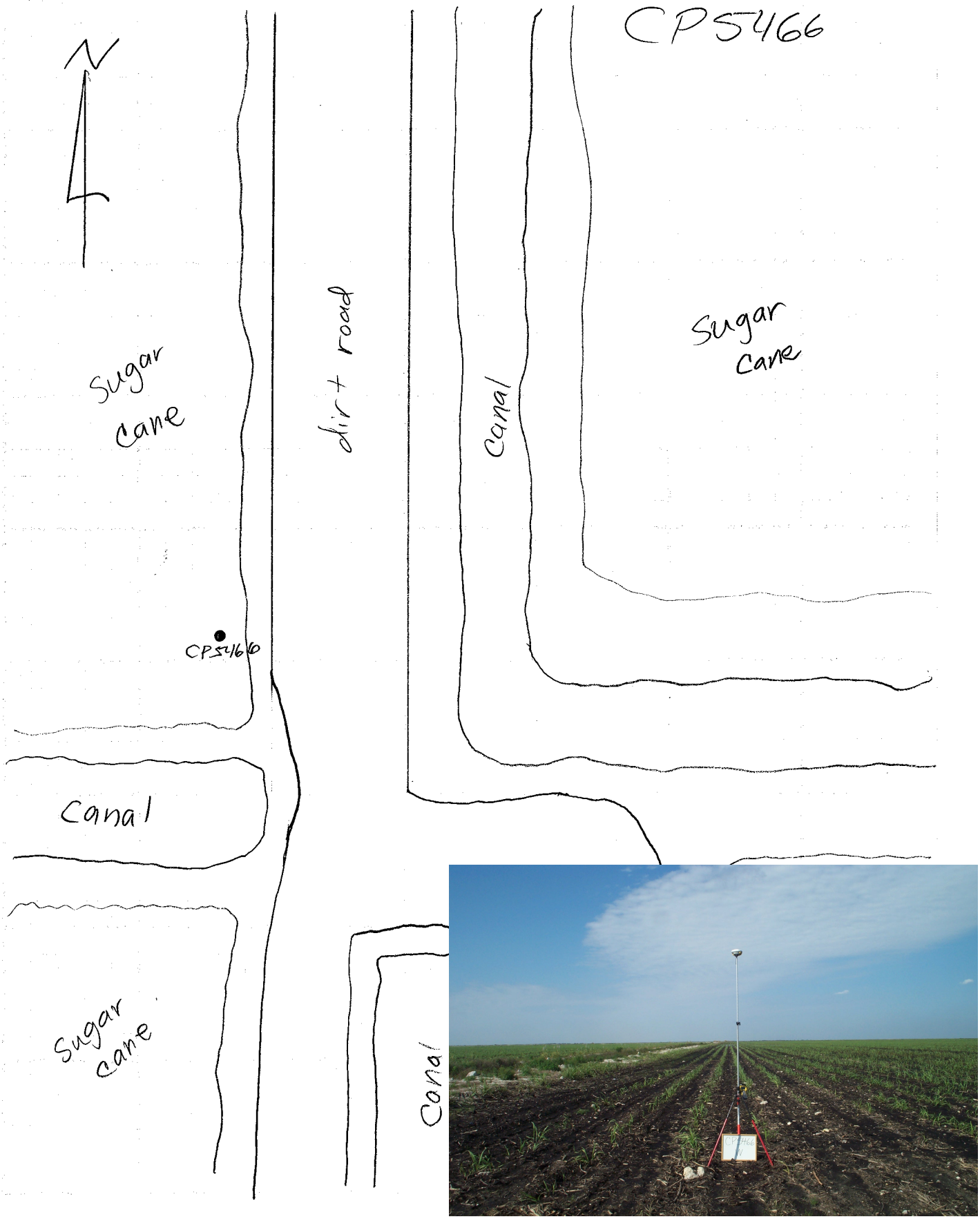
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5466



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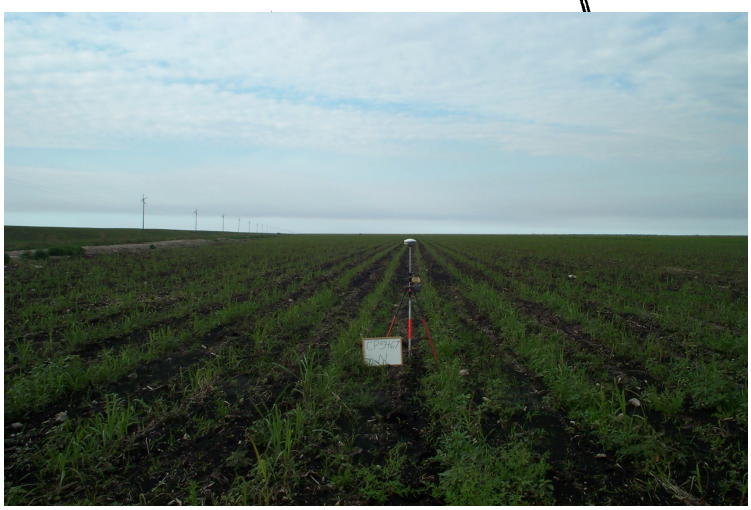
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5467



Sugar cane

CP5467

dirt road

canal

Diesel Pumps

canal

miami canal

dirt road

N

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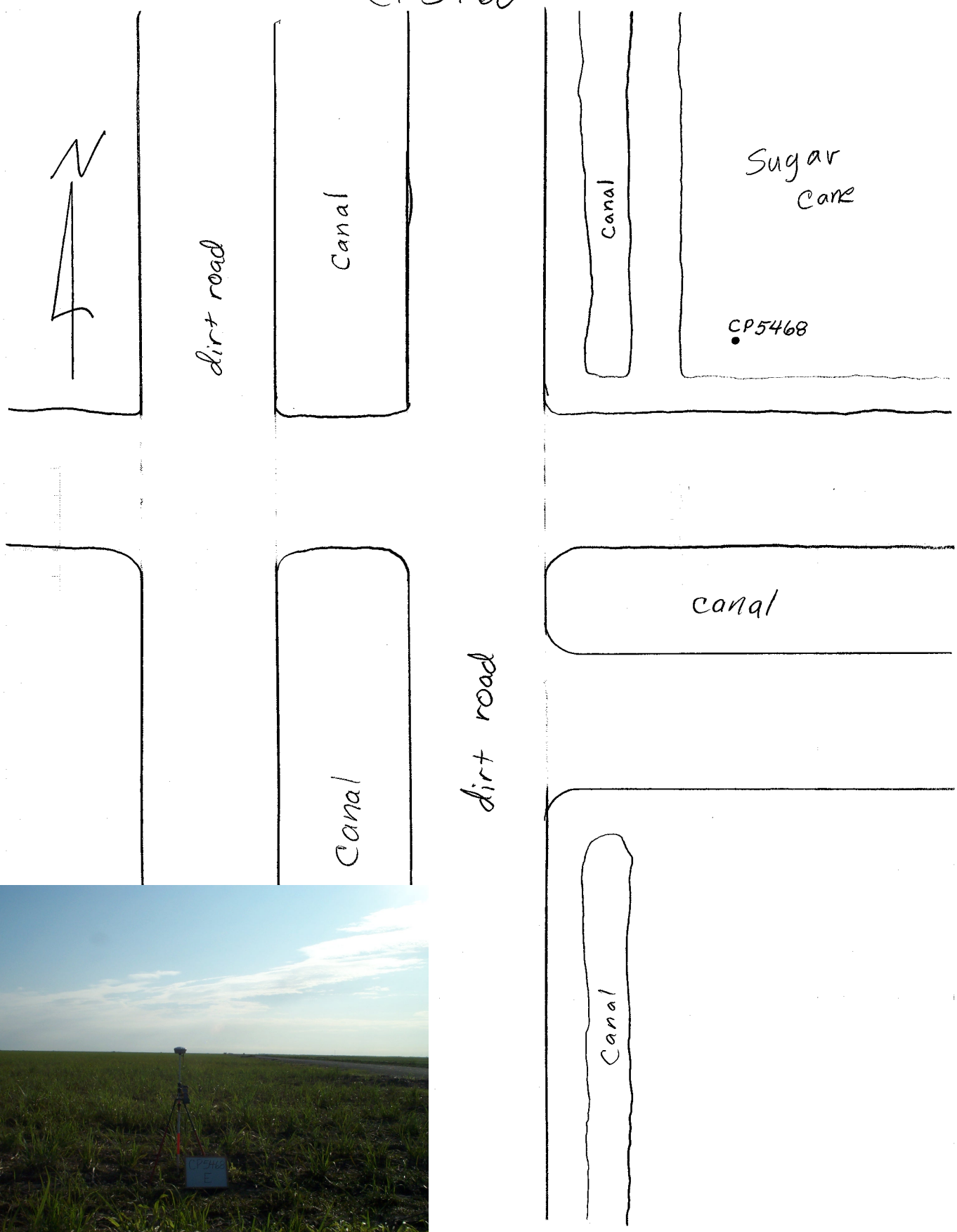
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5468



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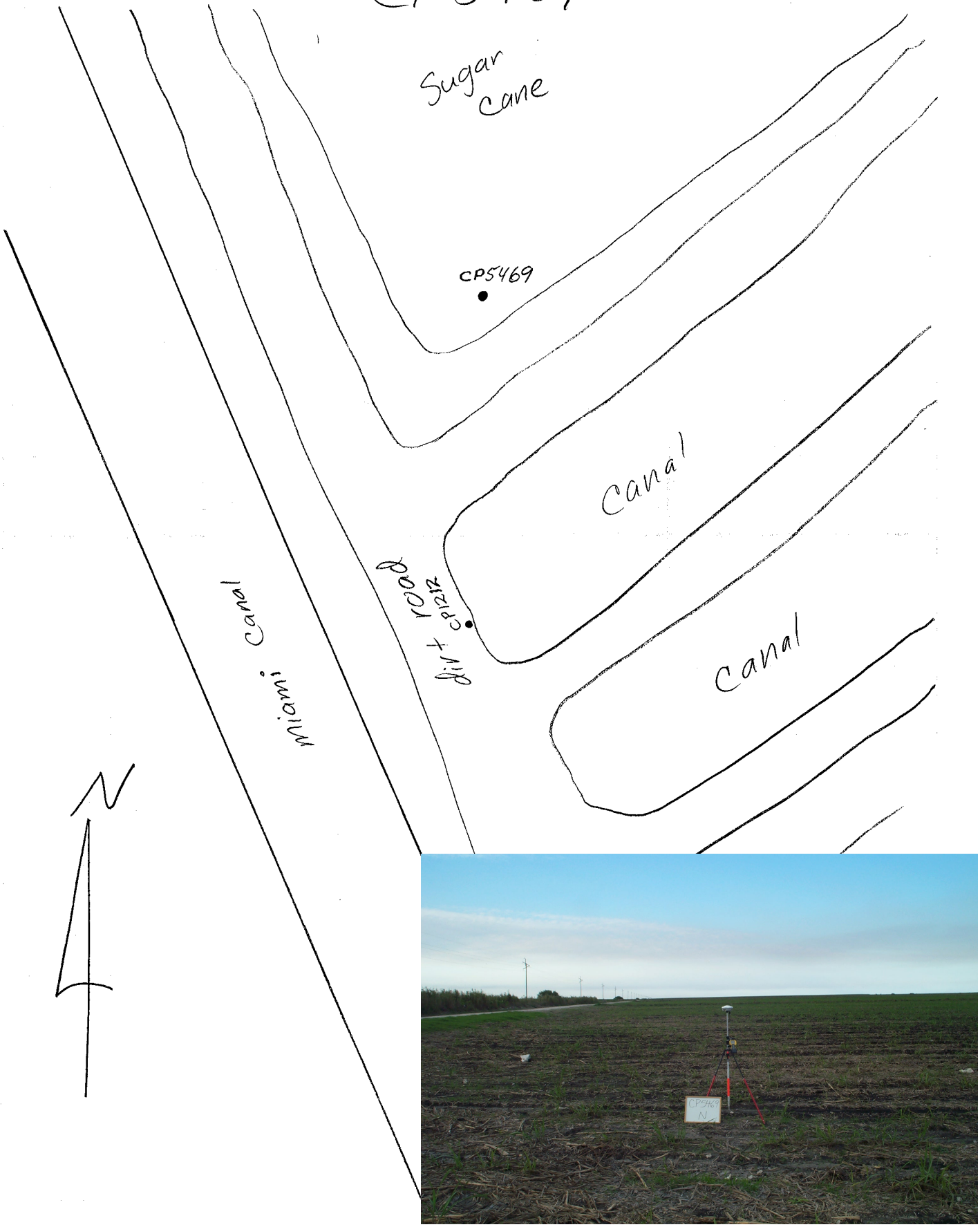
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5469



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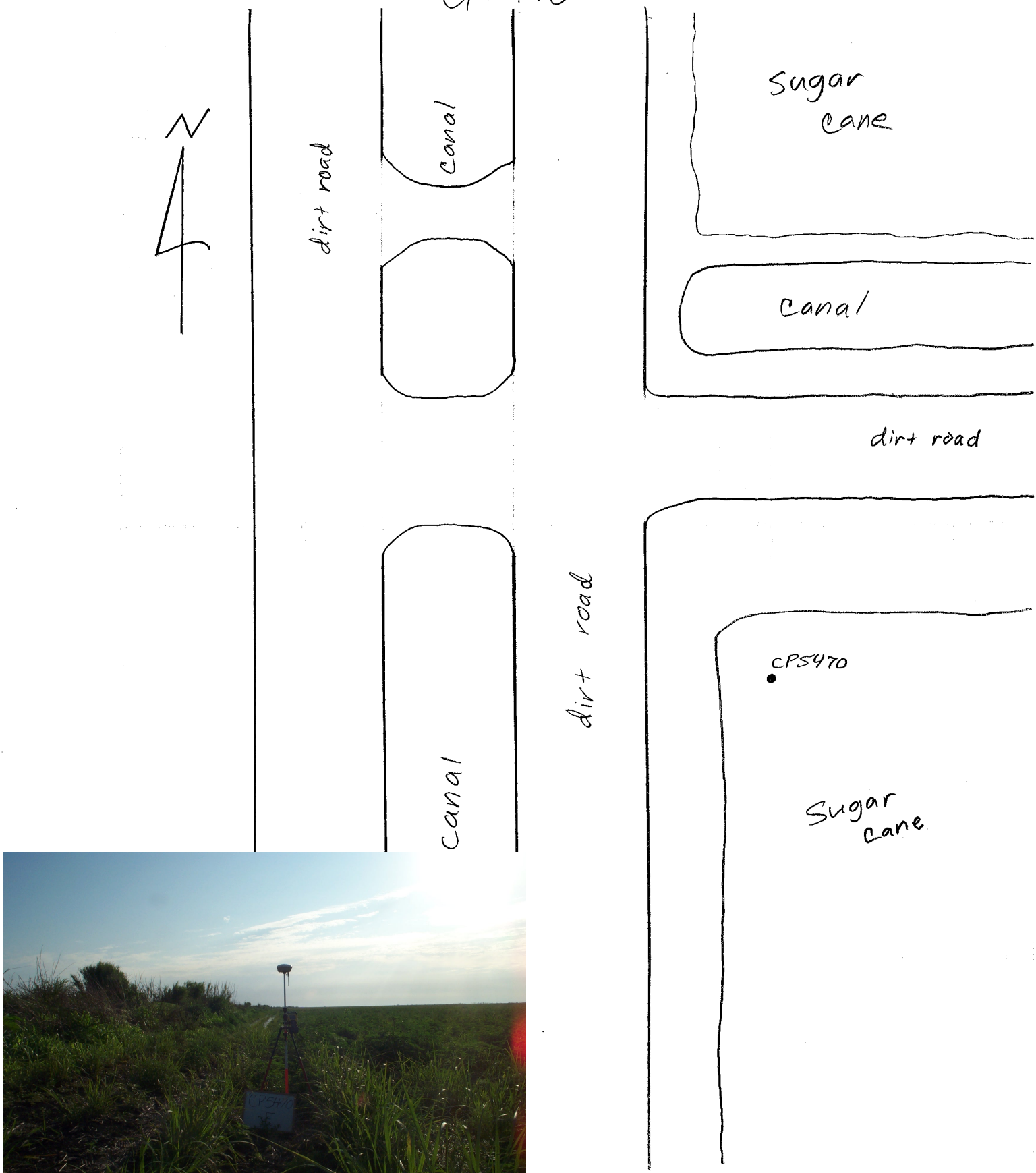
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5470



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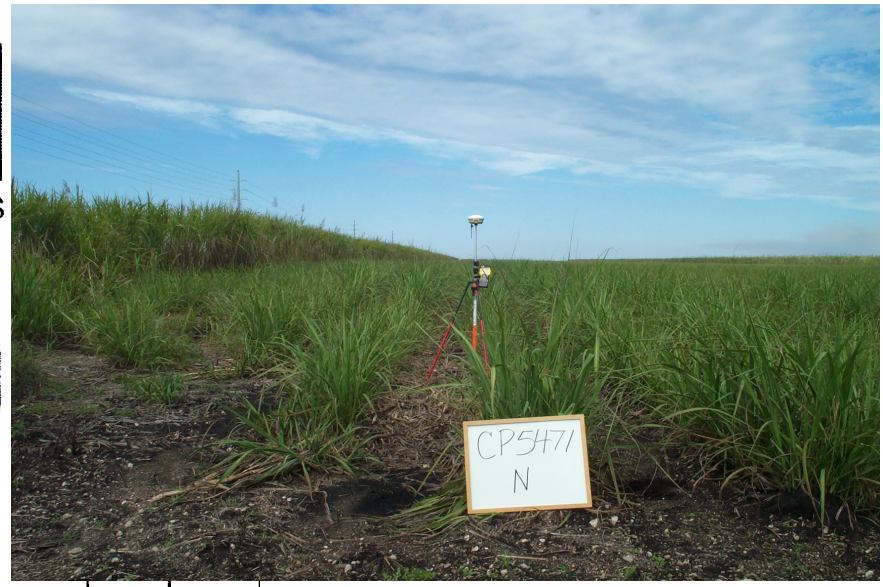

Sugar Cane

dirt road

Sugar Cane

CP5471

dirt road

Canal

Canal

Canal

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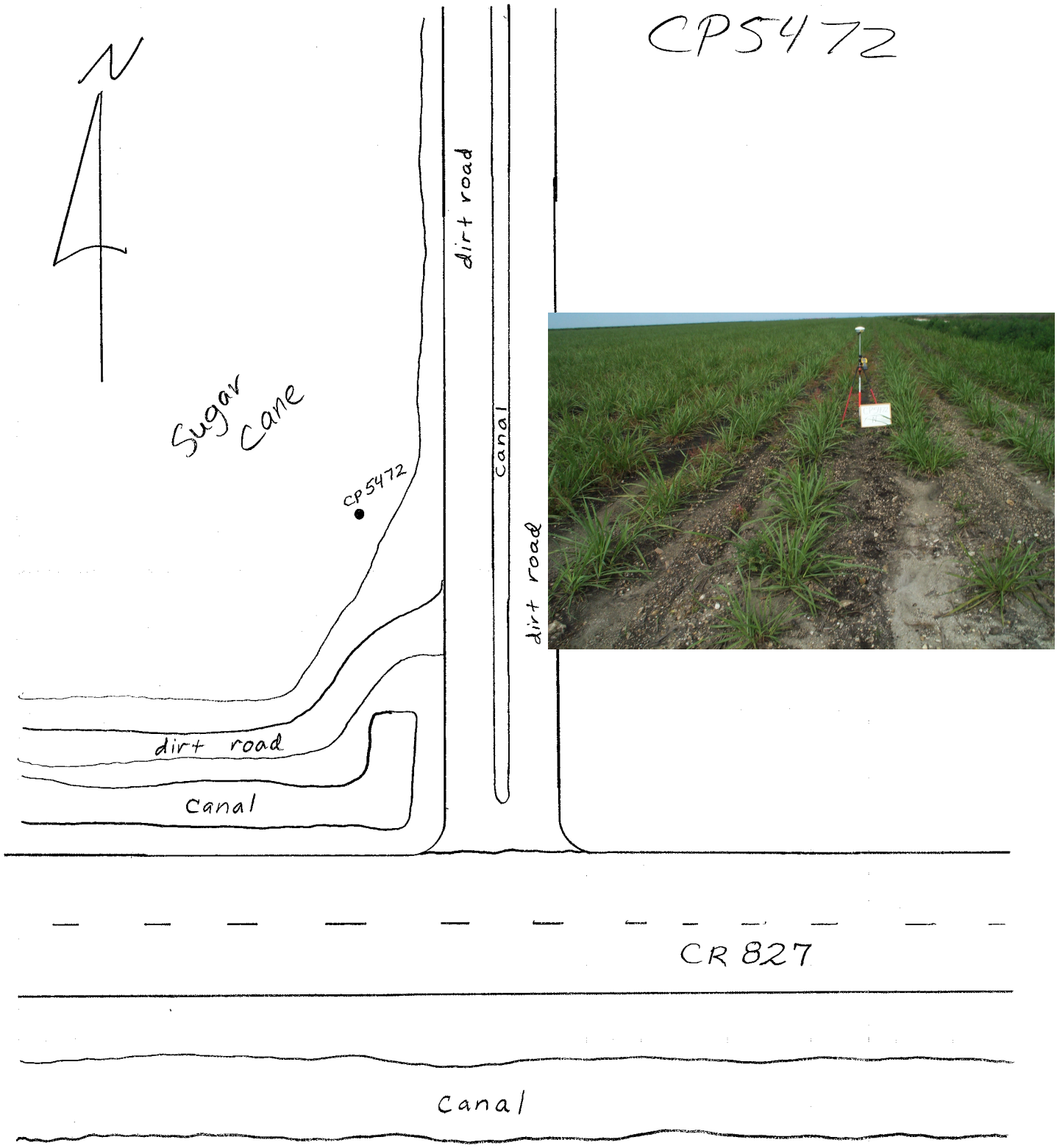
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5472



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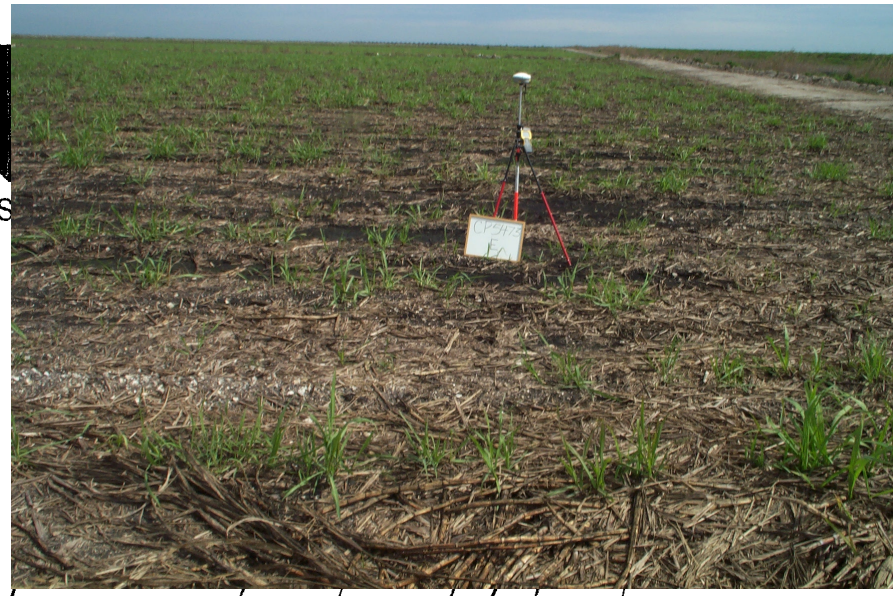
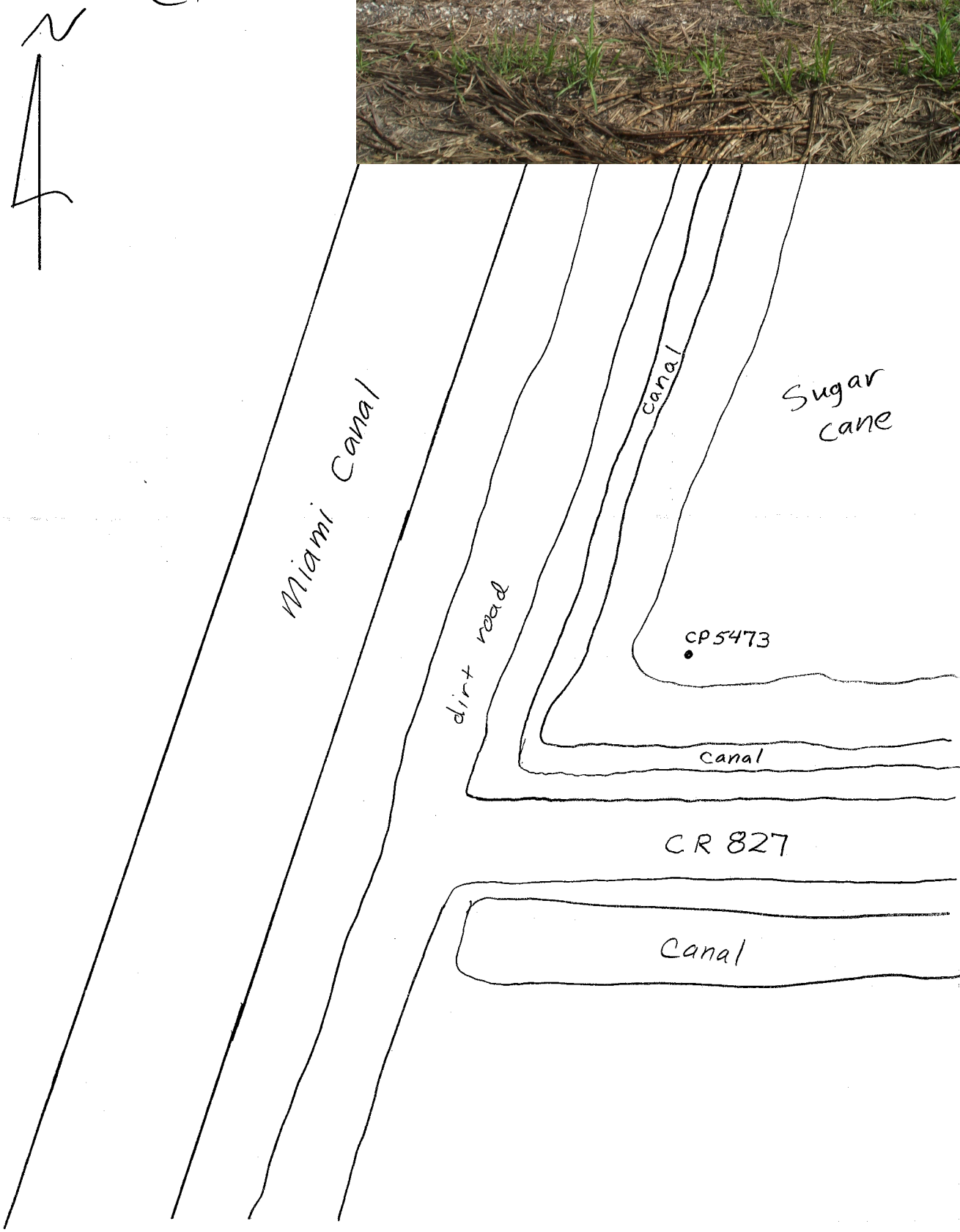
CP5473





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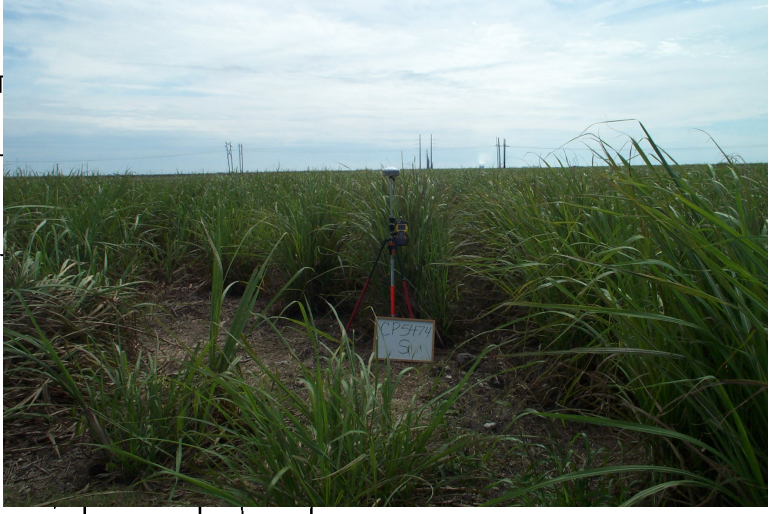
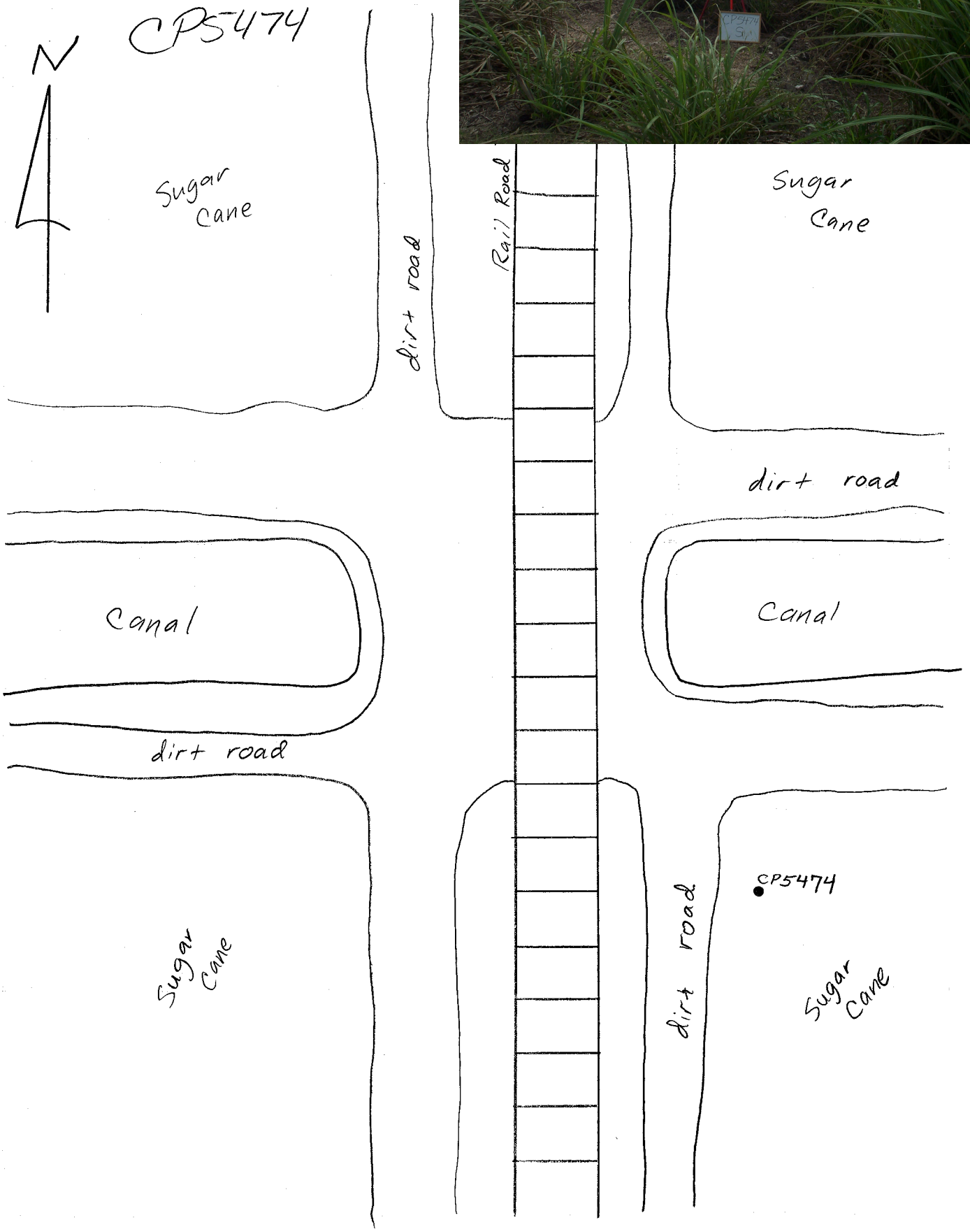
PROJECT

SUBJECT

BY _____





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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

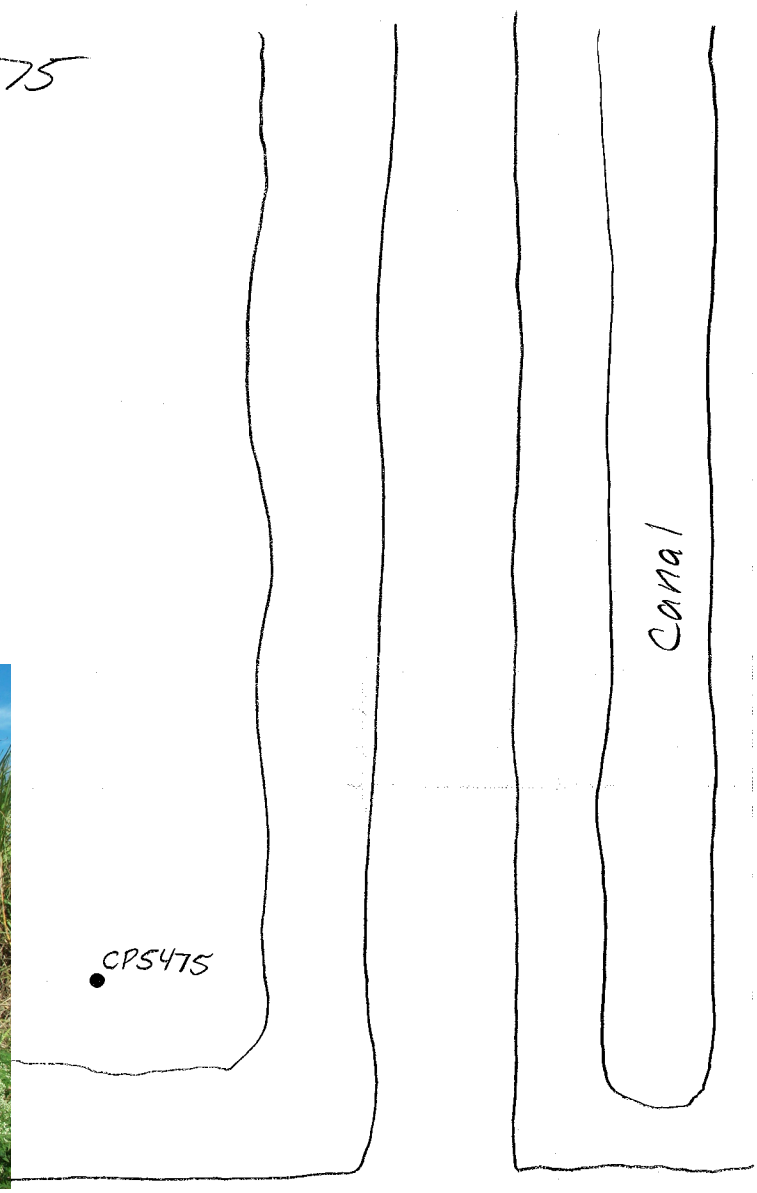
BY _____ JOB NO. _____

CP5475

N

Sugar Cane





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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5476

N

Sugar cane

canal

CP5476

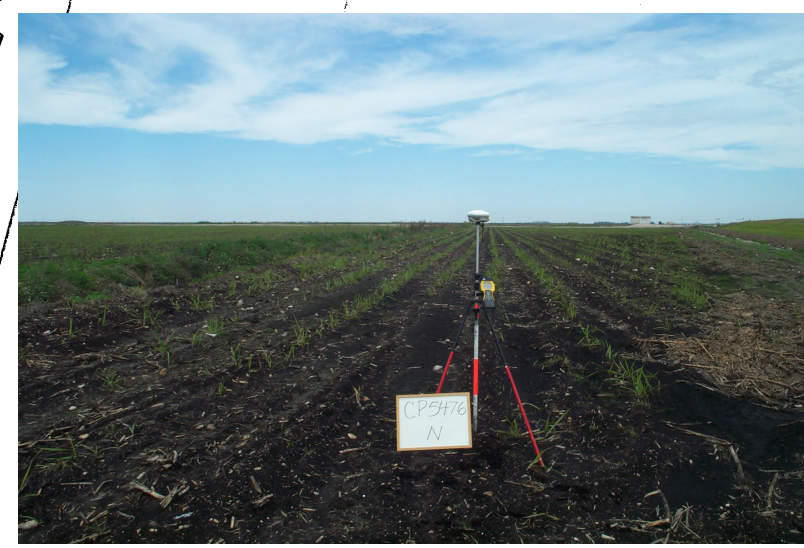
miami canal Road

conc. Head wall

miami canal

Rogers Rd.

guard rails



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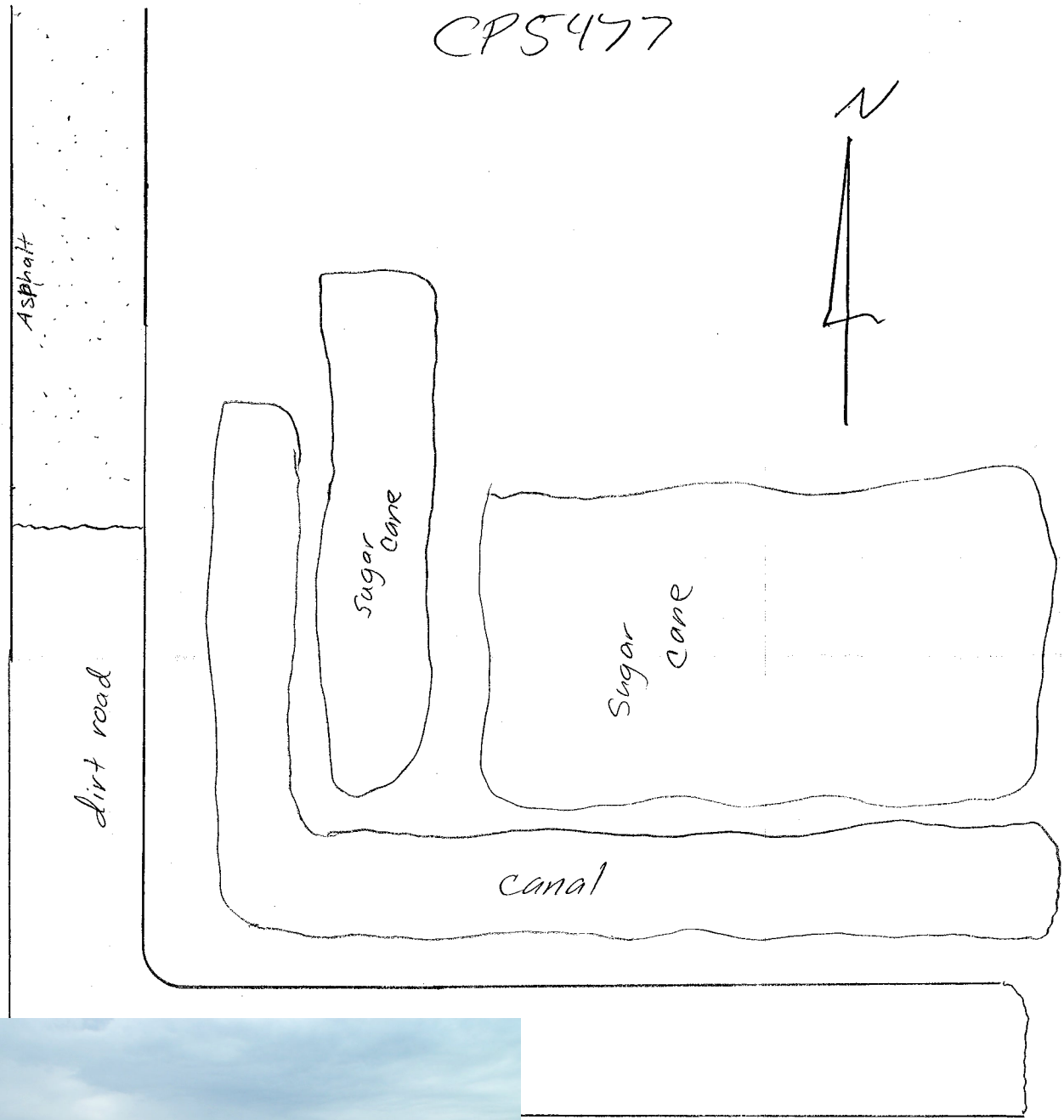
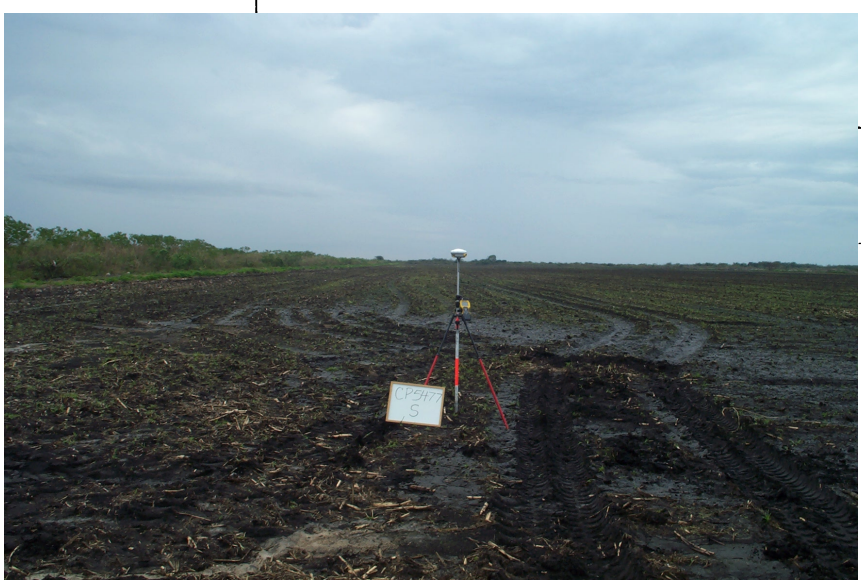
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5477





Sugar Cane

CP 5477

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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP5478

N

Sugar cane

Canal

dirt road

Canal

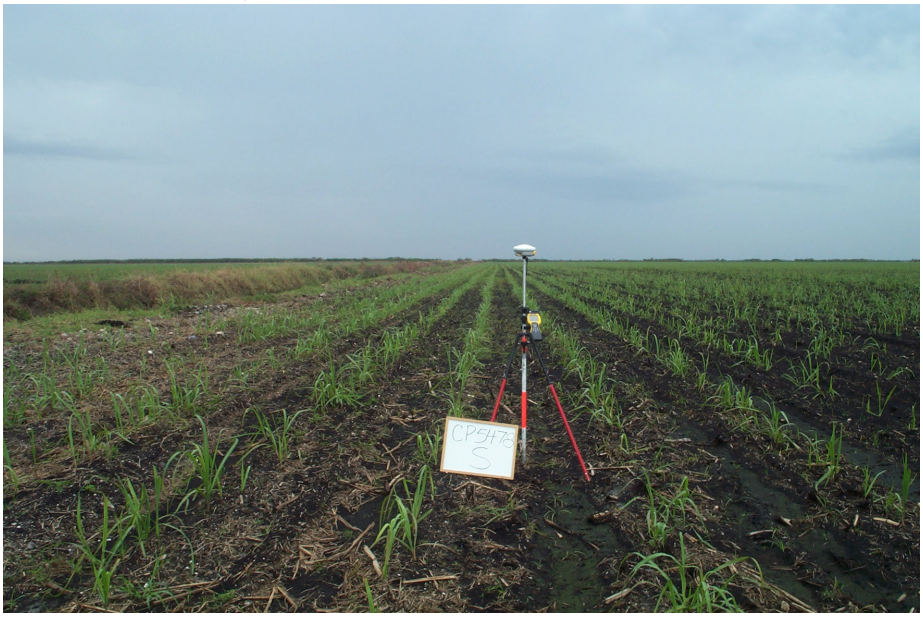
Canal

dirt road

CP5478

Canal

Sugar Cane



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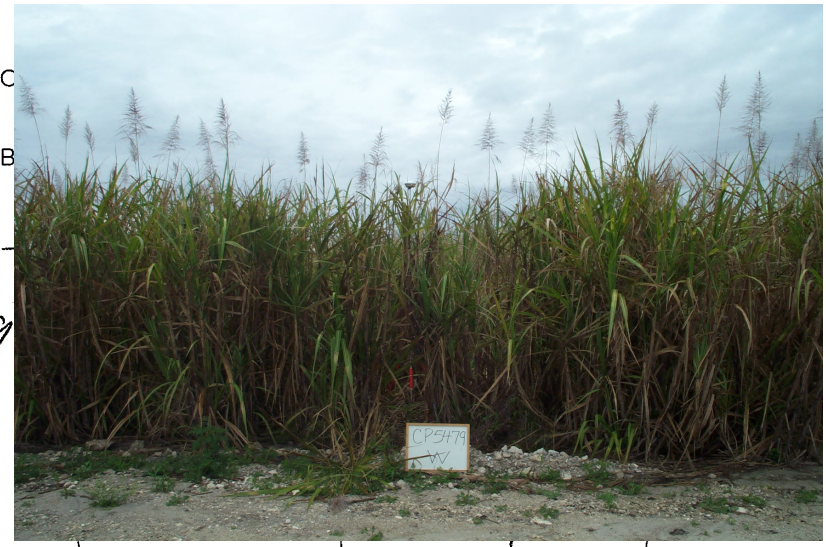
PRC

SUB

BY

CP5479



N

Sugar Cane

dirt road

Canal

Sugar Cane

CP5479

Canal

Canal

Canal

FIR CP1213

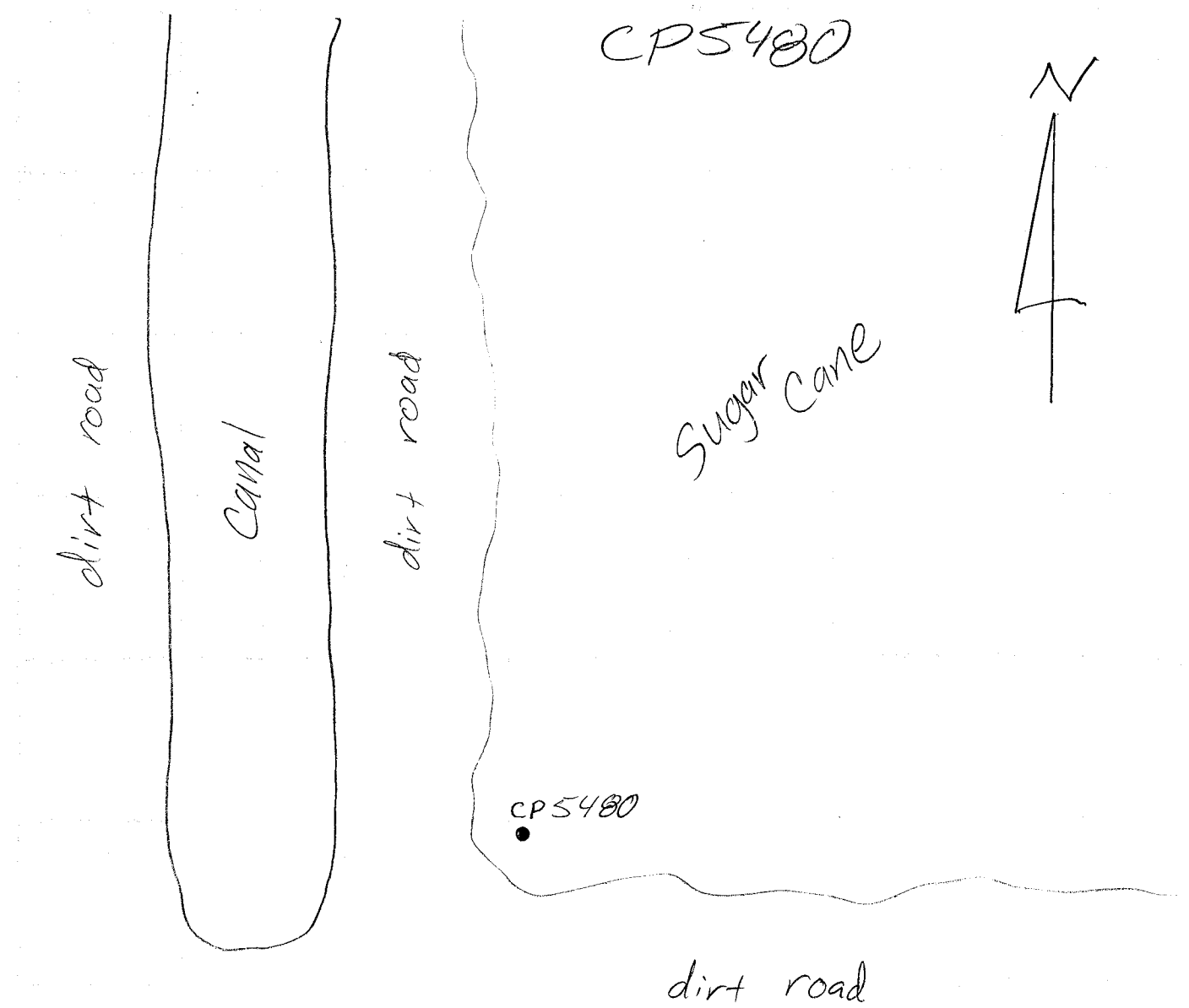
dirt road

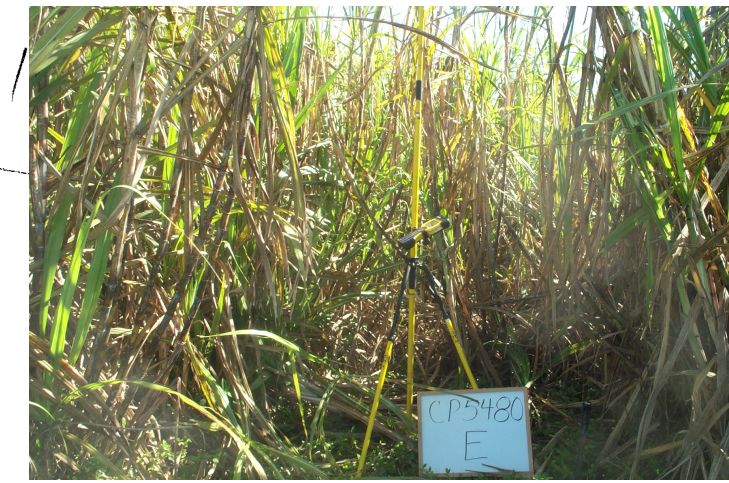
GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____





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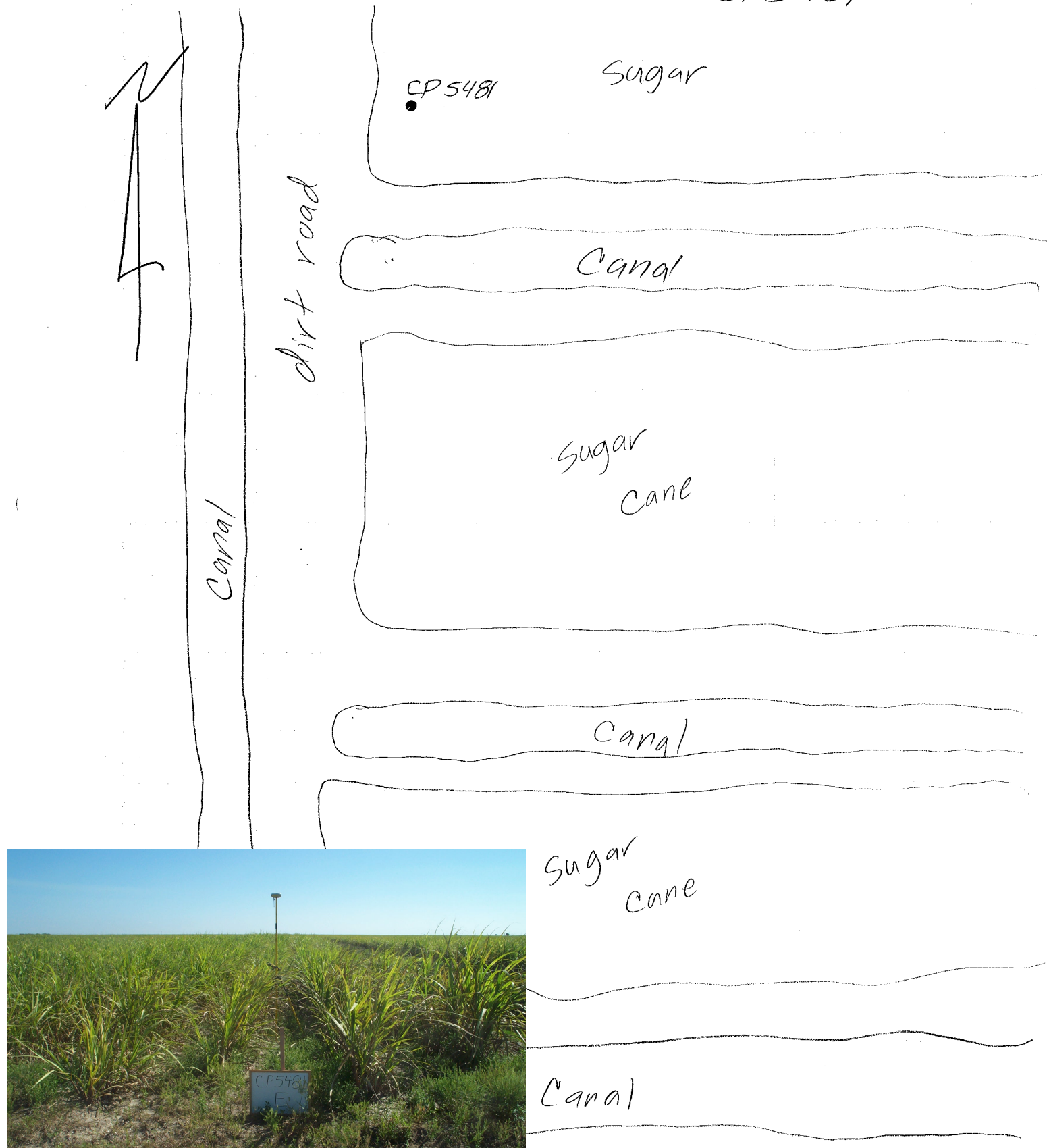
CP5481



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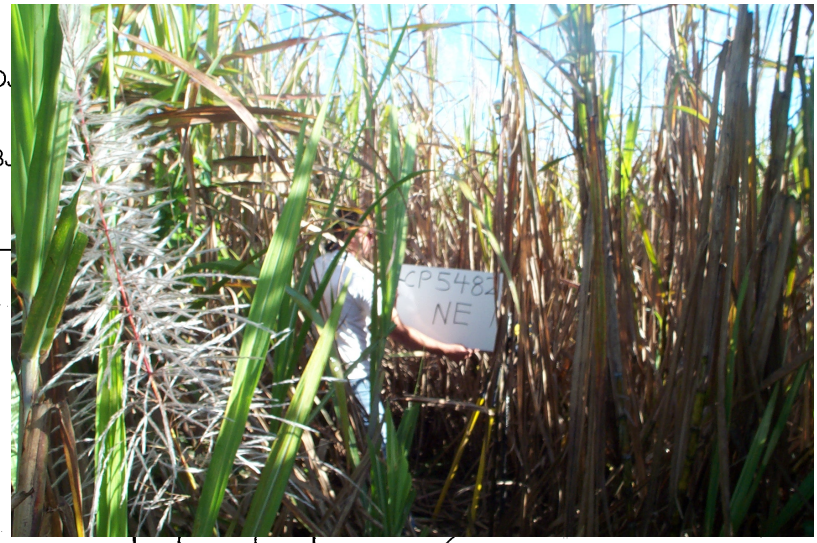
NICEVILLE, FLORIDA 32578
(850) 678-5141

PRO.
SUB.
BY



CPS482

DIRT FIELD

N

Sugar cane

CPS482

Sugar cane

Sugar cane

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
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(850) 678-5141

PROJECT

SUBJECT

BY

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJEC

SUBJEC

BY



CP5484

Sugar Cane field

W. Canal

Canal

Vegtable fields

N

Sugar Cane Field

▲-CP5484

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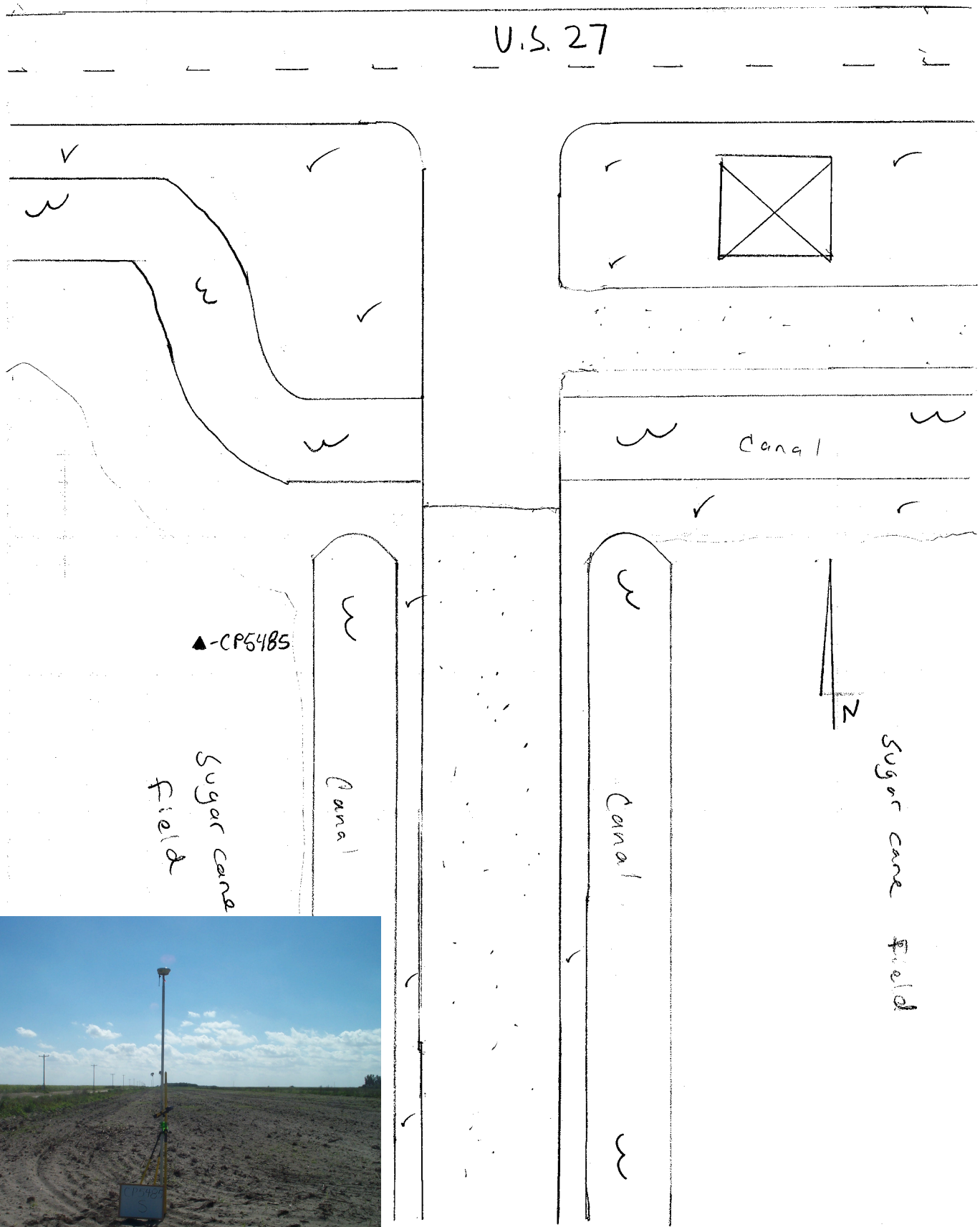
CP5485



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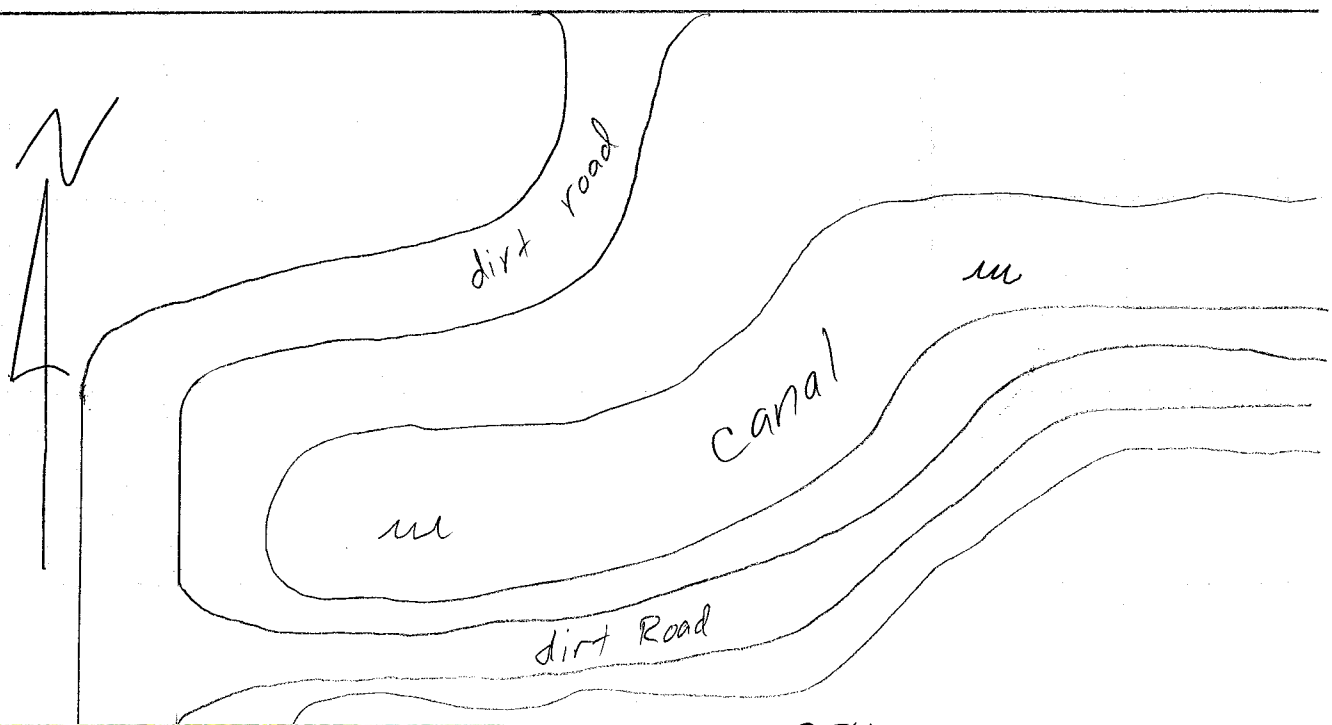
BY _____ JOB NO. _____

CP5486

← Hwy 27

Hwy 27 →





Sugar Cane

GUSTIN, COTHERN & TUCKER, INC.
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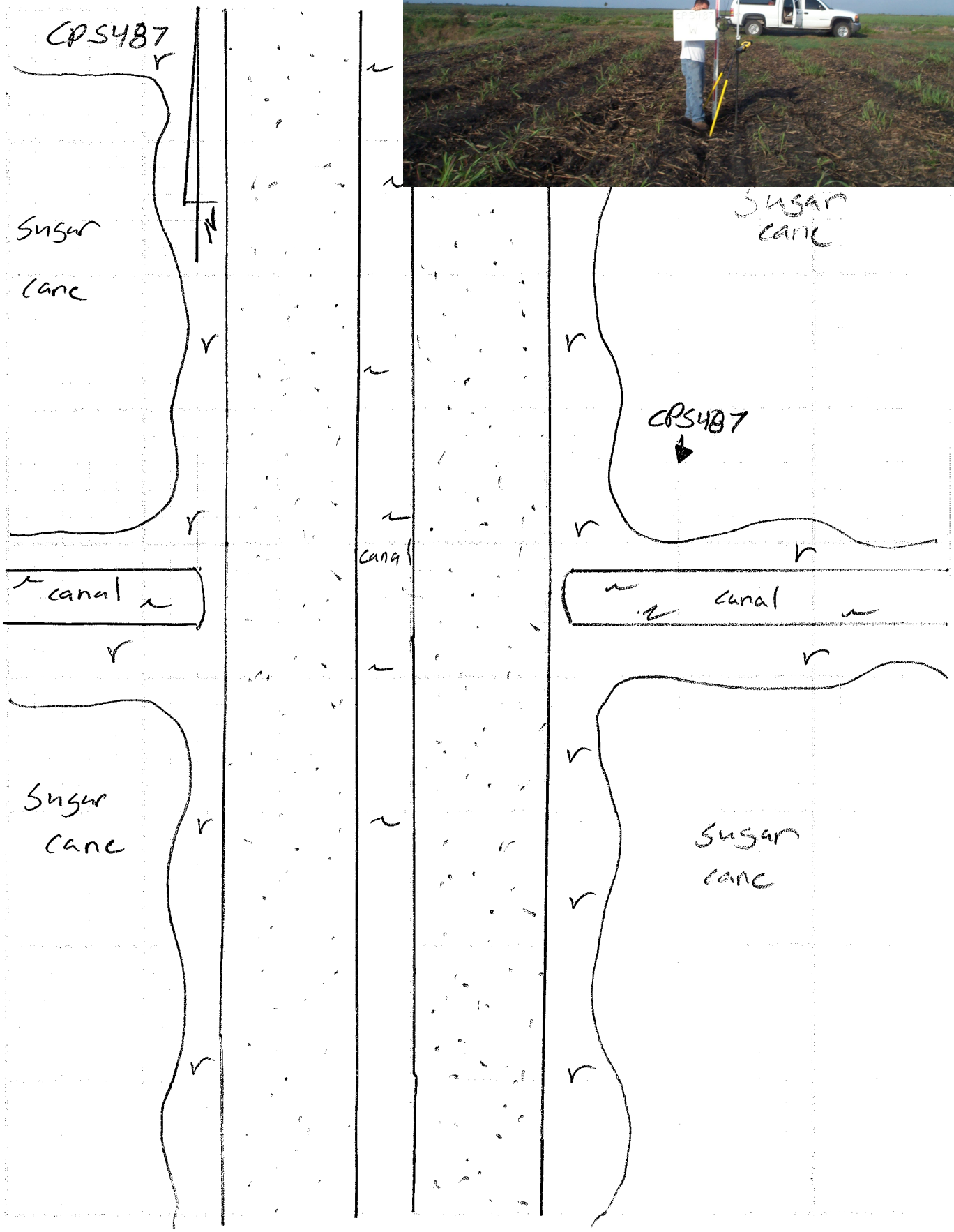
NICEVILLE, FLORIDA 32578
(850) 678-5141

P
S
B





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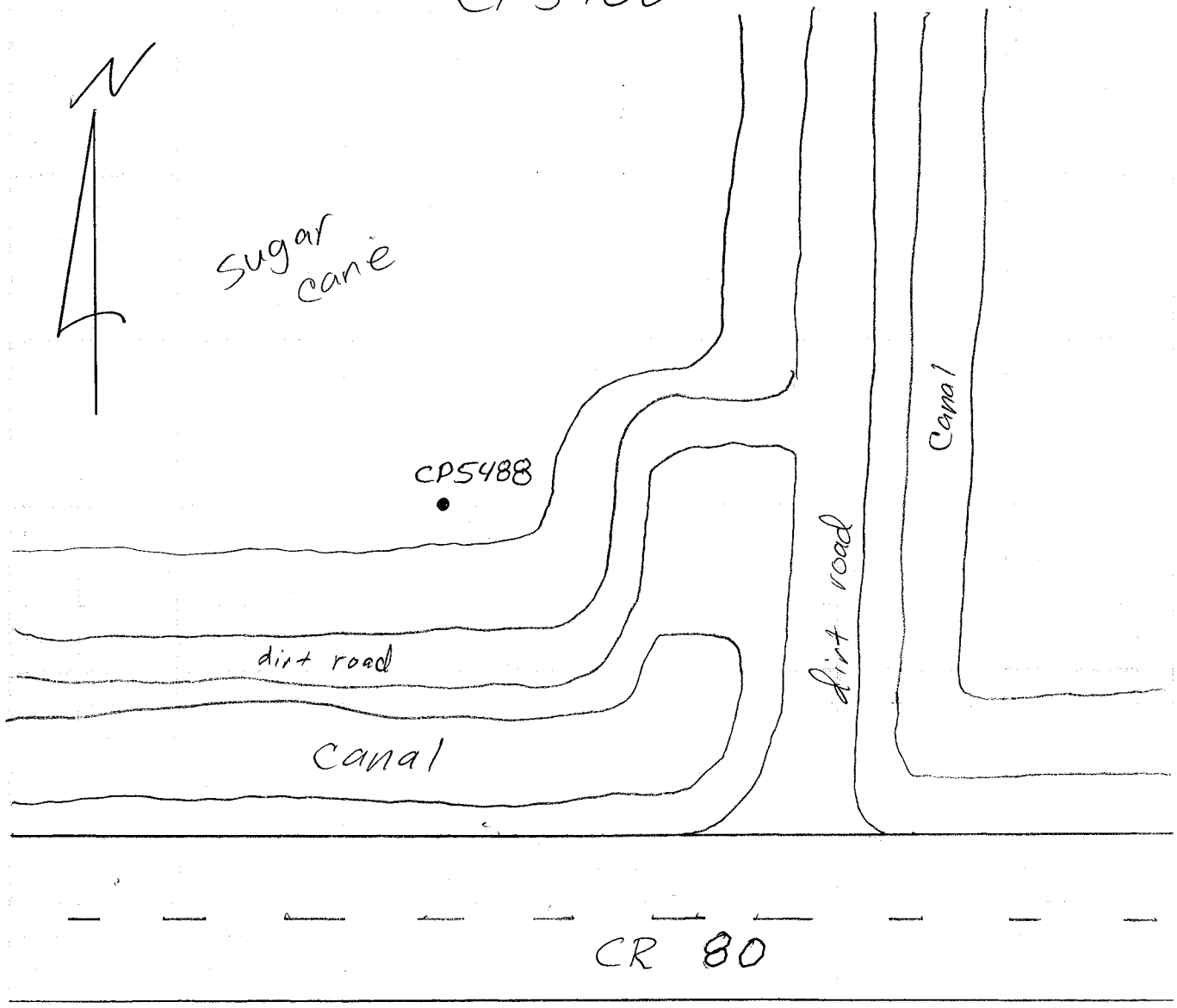
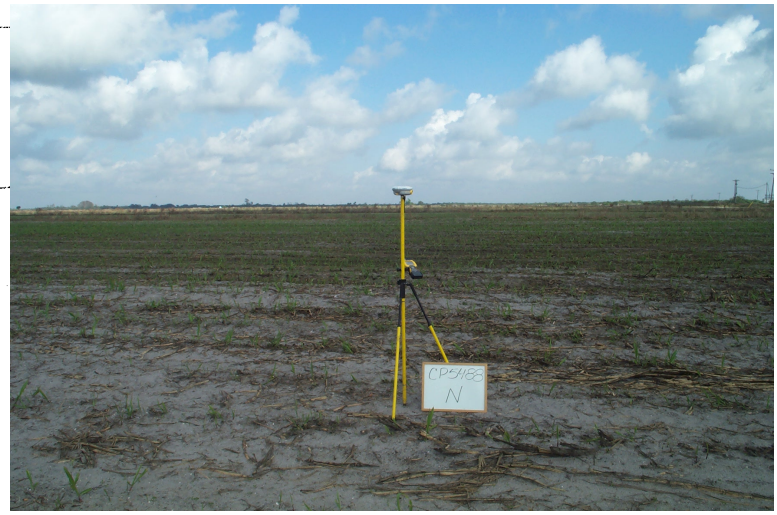
BY _____ JOB NO. _____

CP5488





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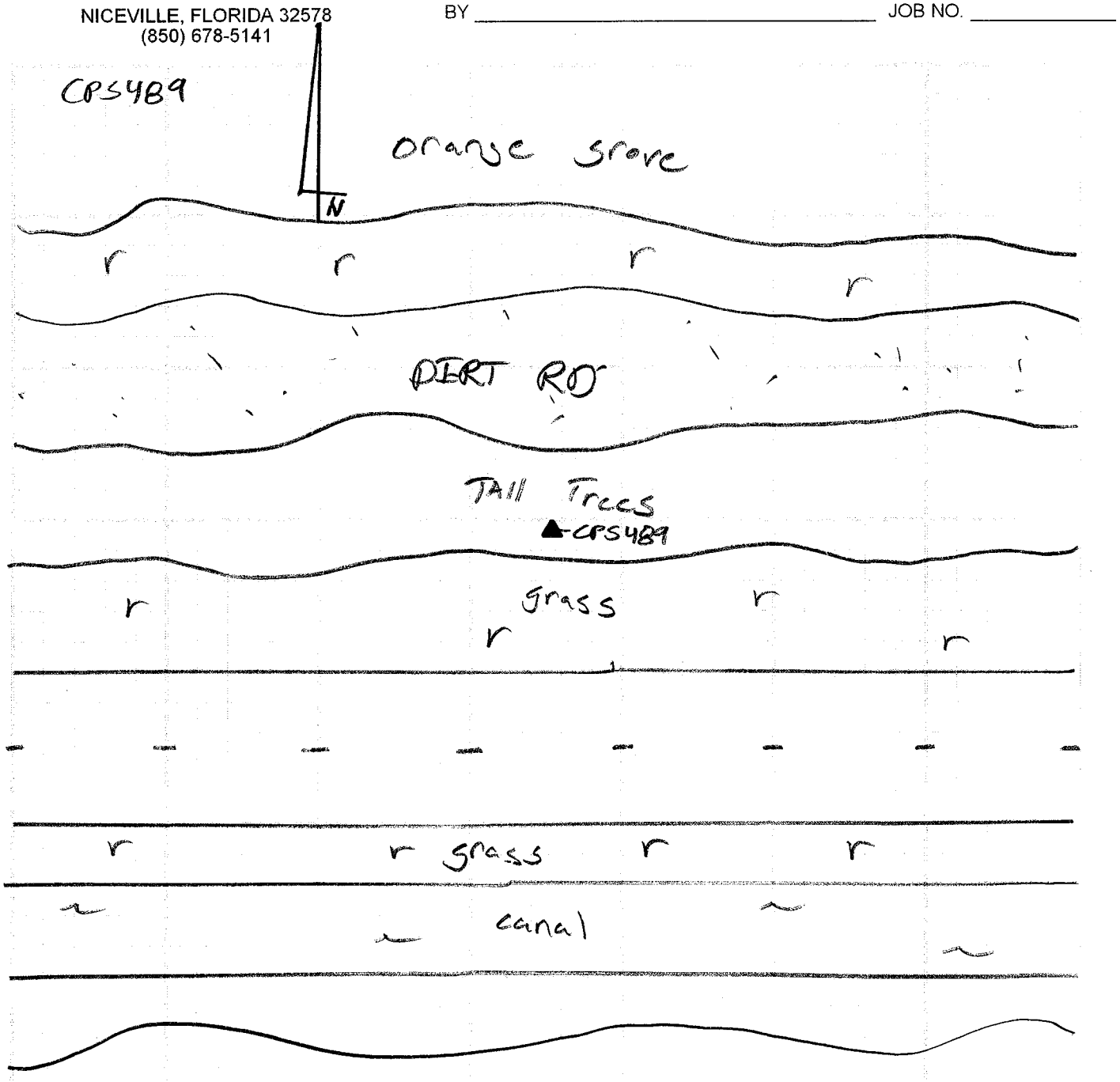

Orange Grove



GUSTIN, COTHERN & TUCKER, INC.
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SUBJECT _____ DATE _____

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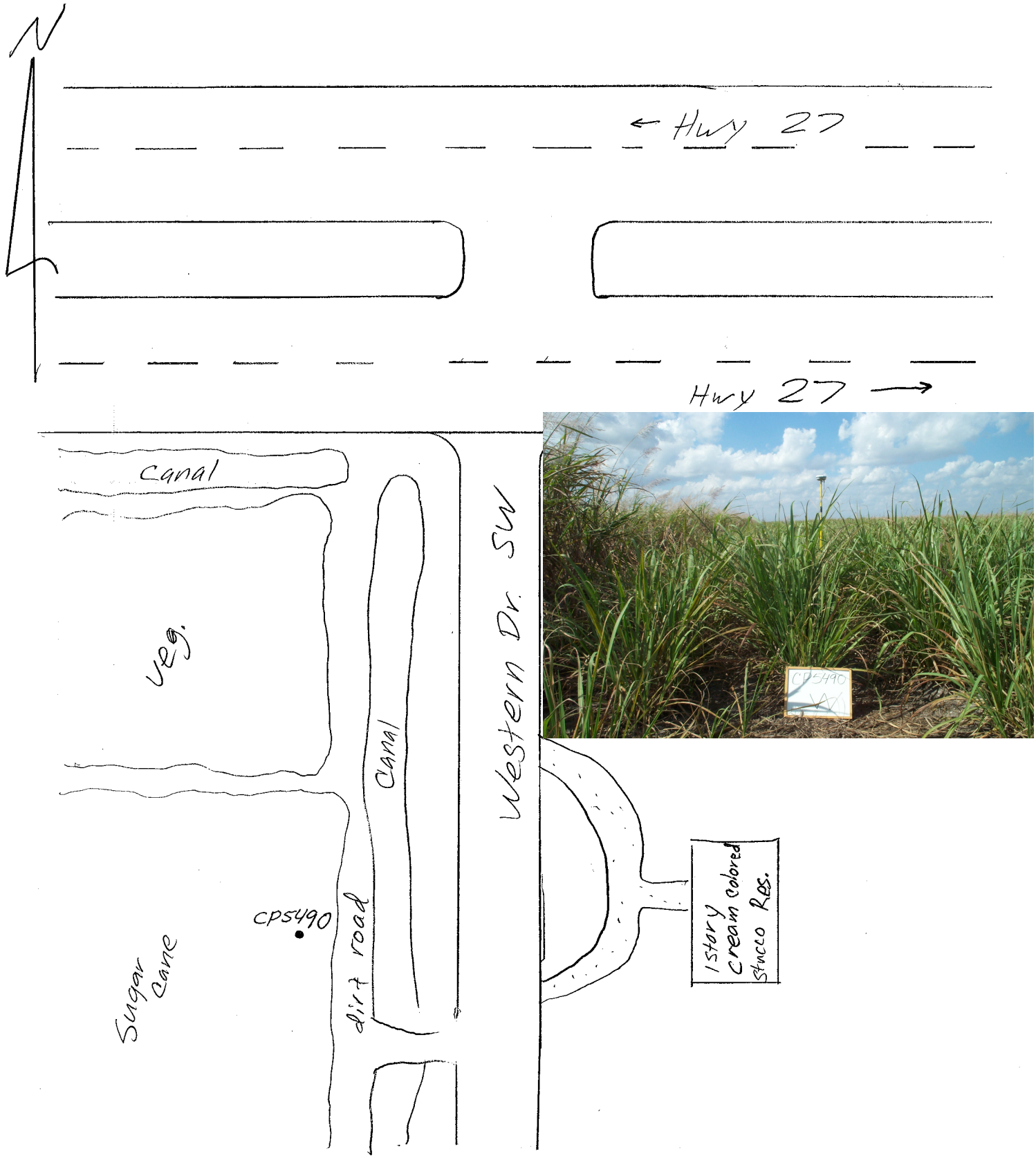
CP5490.



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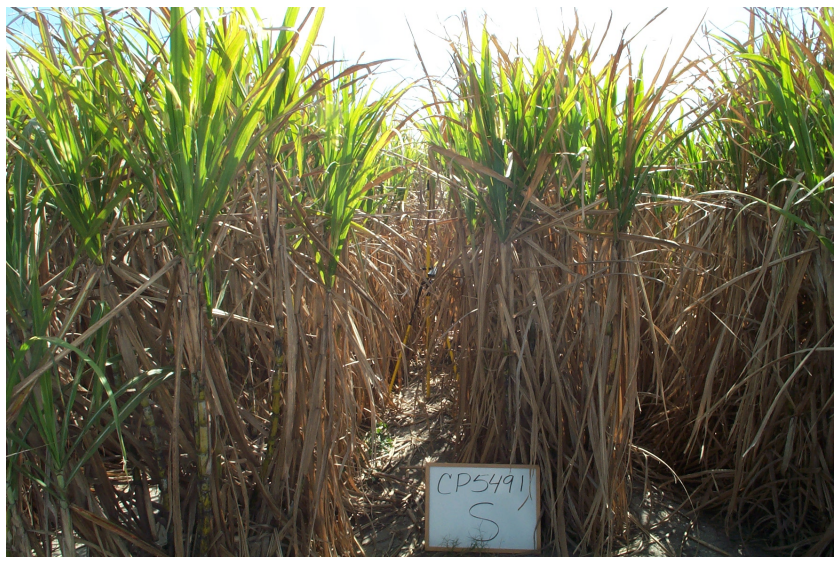
BY _____ JOB NO. _____

CP5491

N



Canal

Hwy 78

Canal

dirt road (Potato Farm)

Canal

dirt road

CP5491

Sugar cane

Canal

GUSTIN, COTHERN & TUCKER, INC.
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NICEVILLE, FLORIDA 32578
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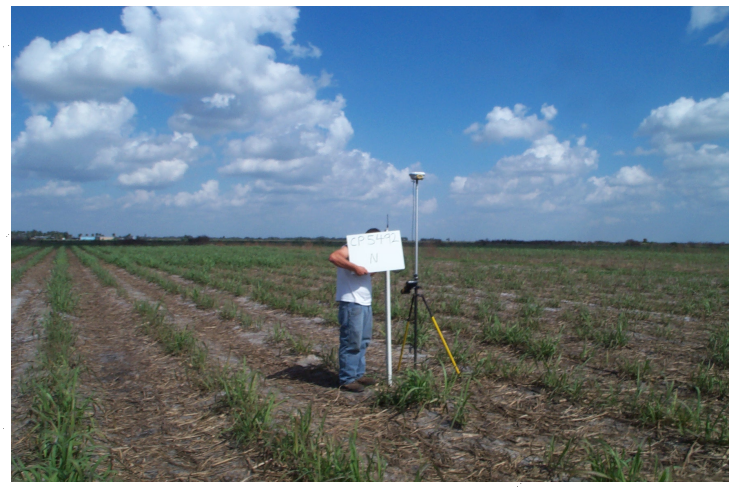

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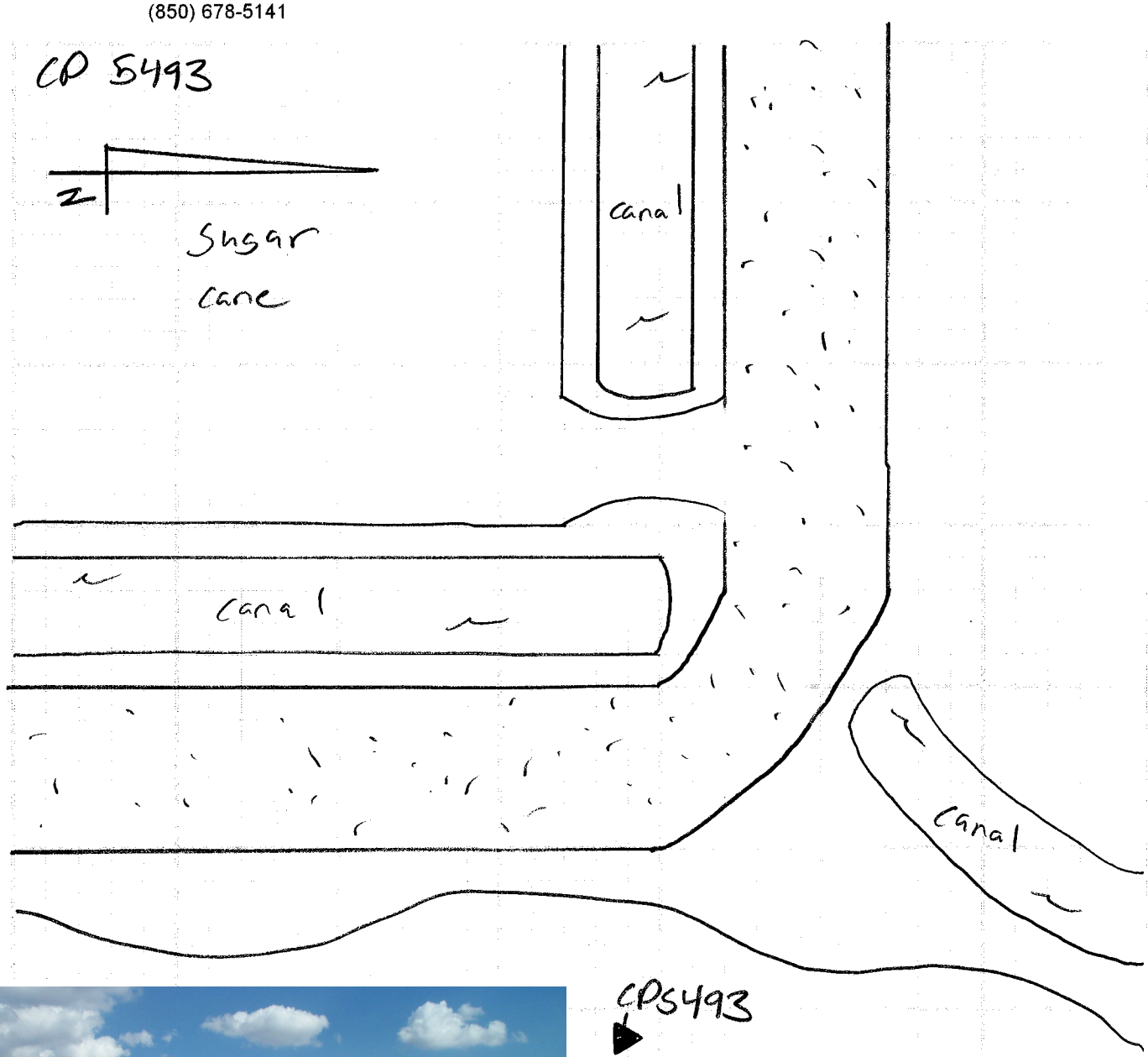

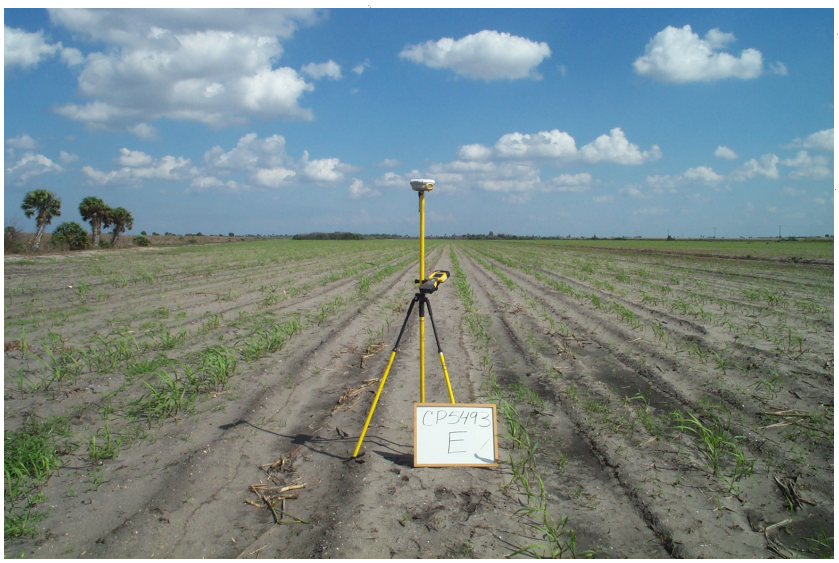

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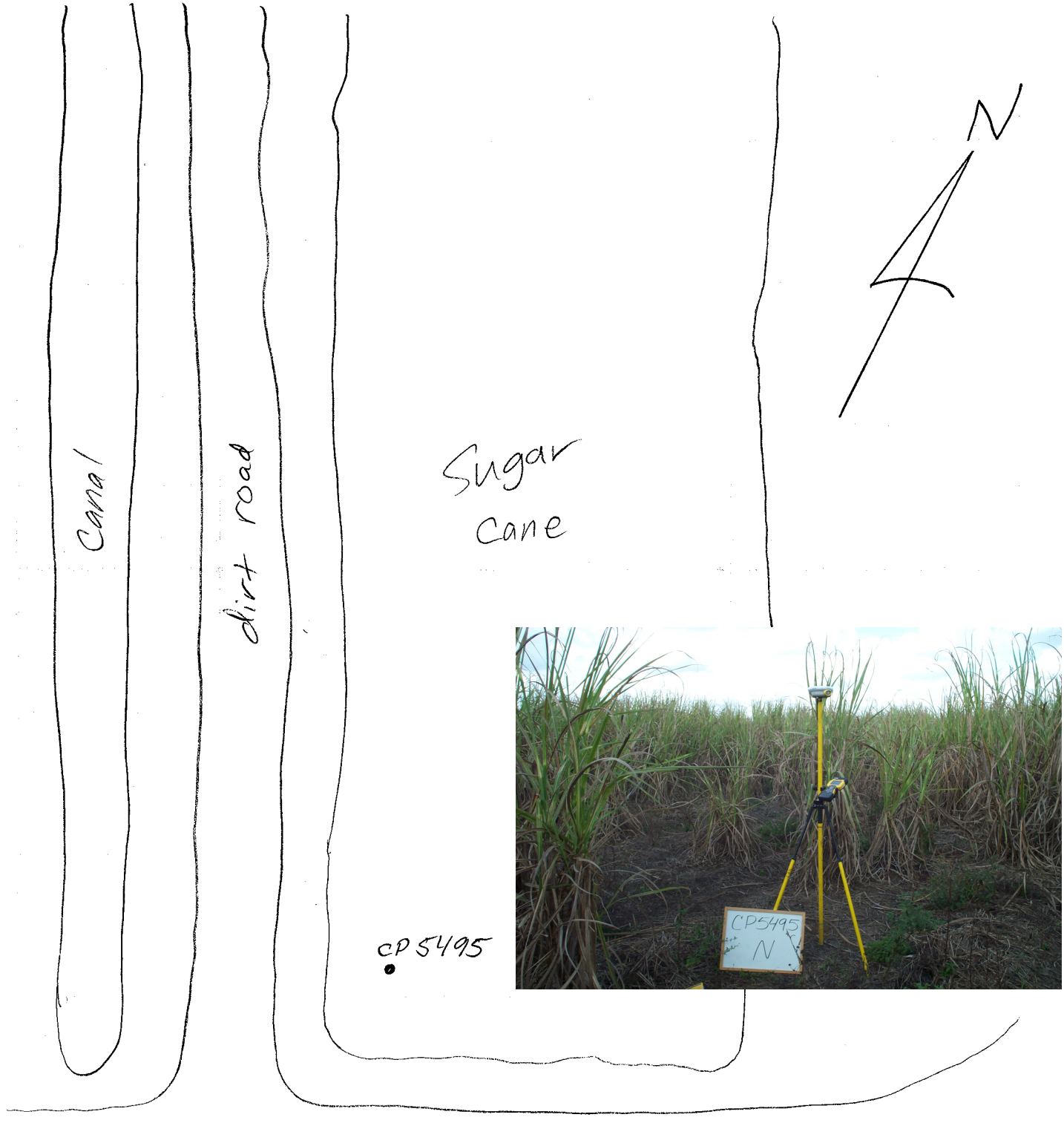
BY _____ JOB NO. _____

CP5495



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NICEVILLE, FLORIDA 32578
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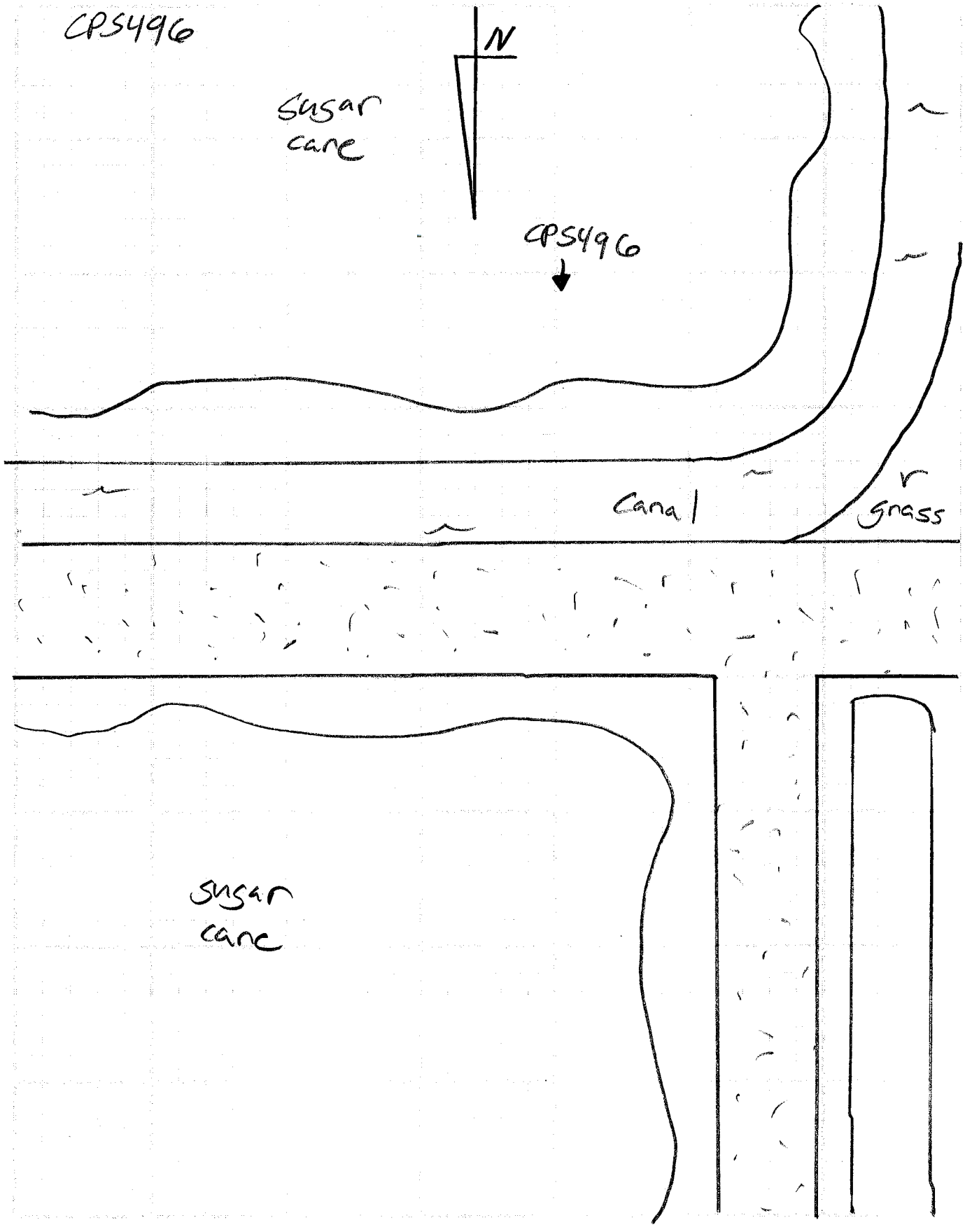

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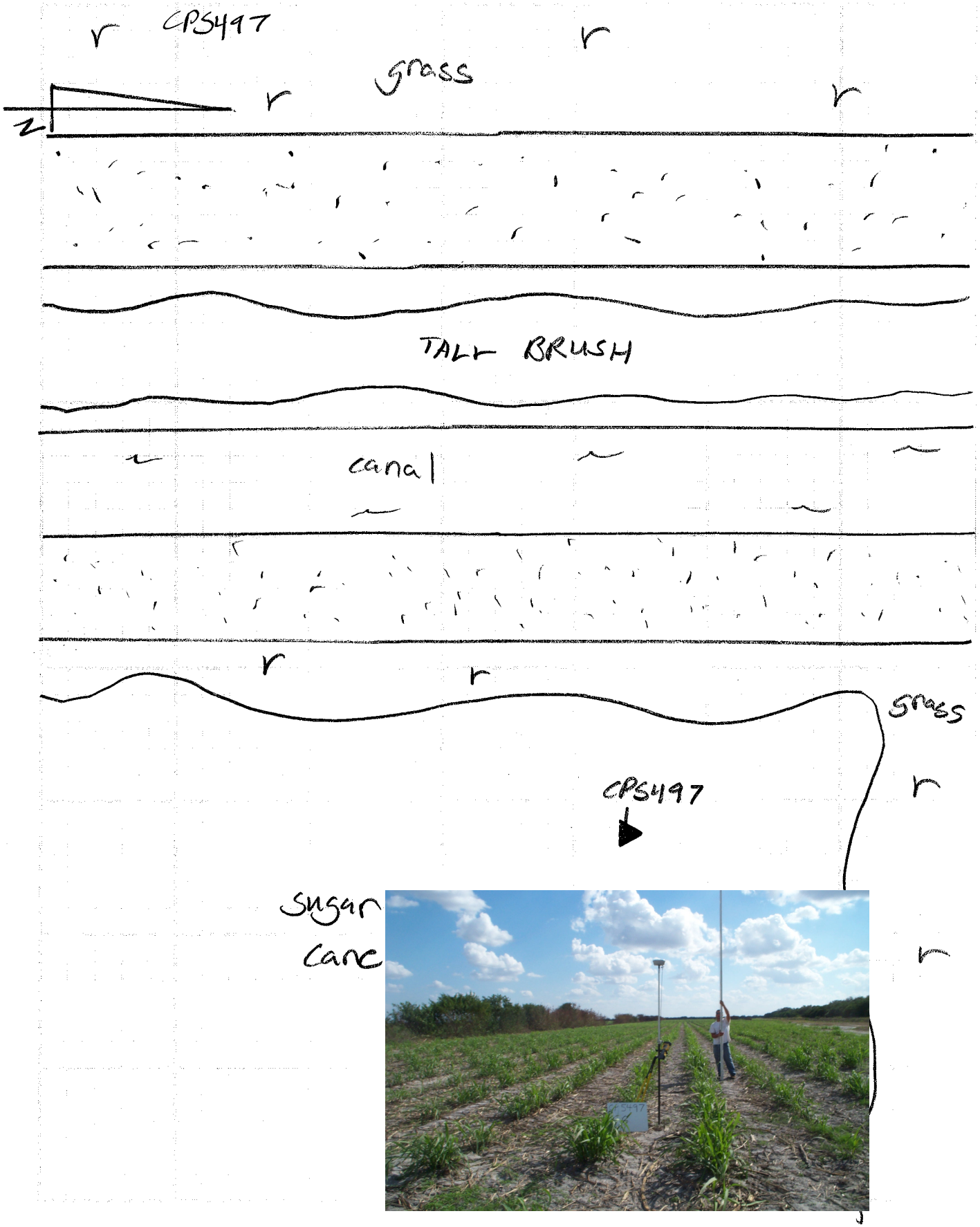

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NICEVILLE, FLORIDA 32578
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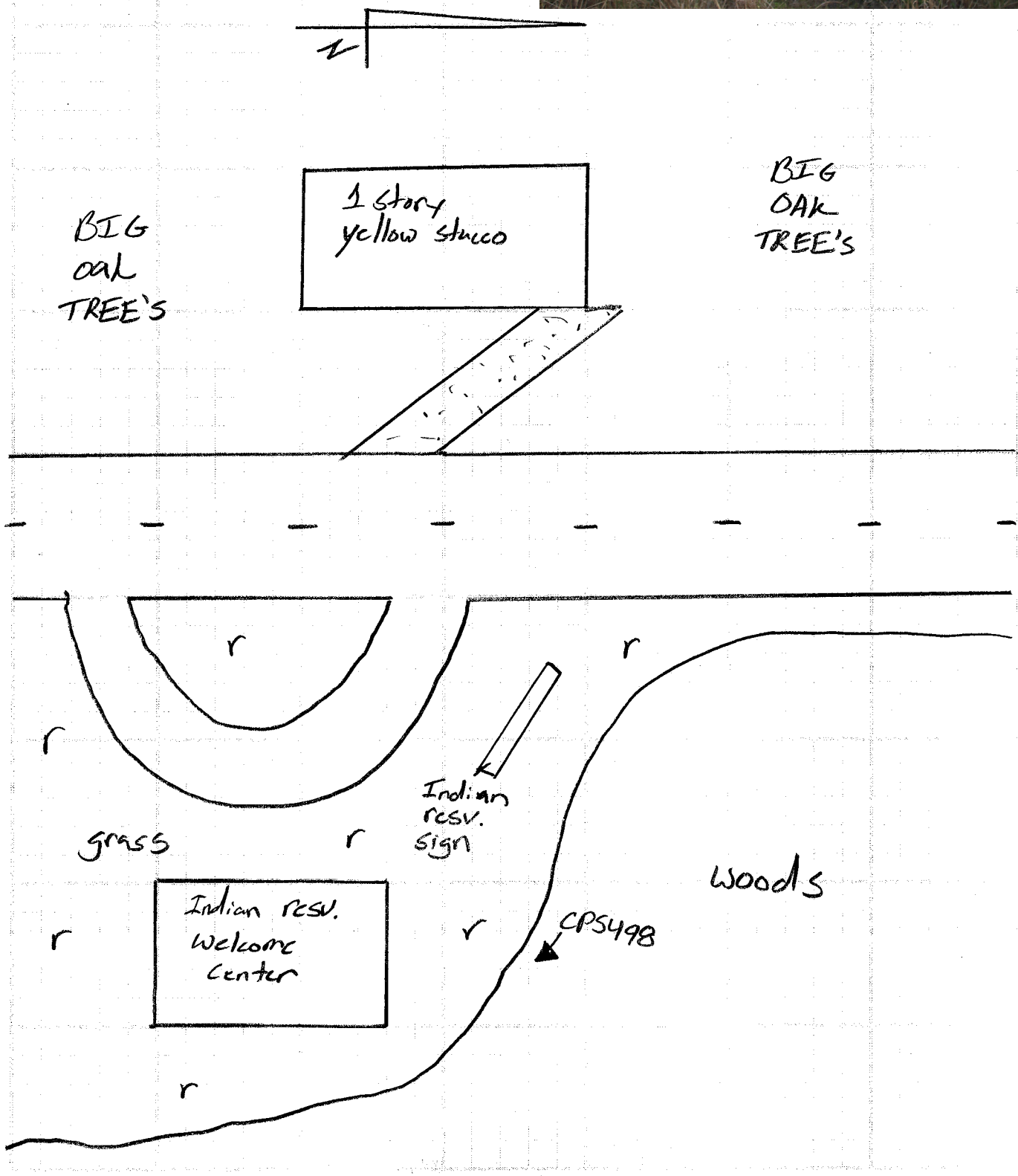
PROJECT ____
SUBJECT ____
BY _____



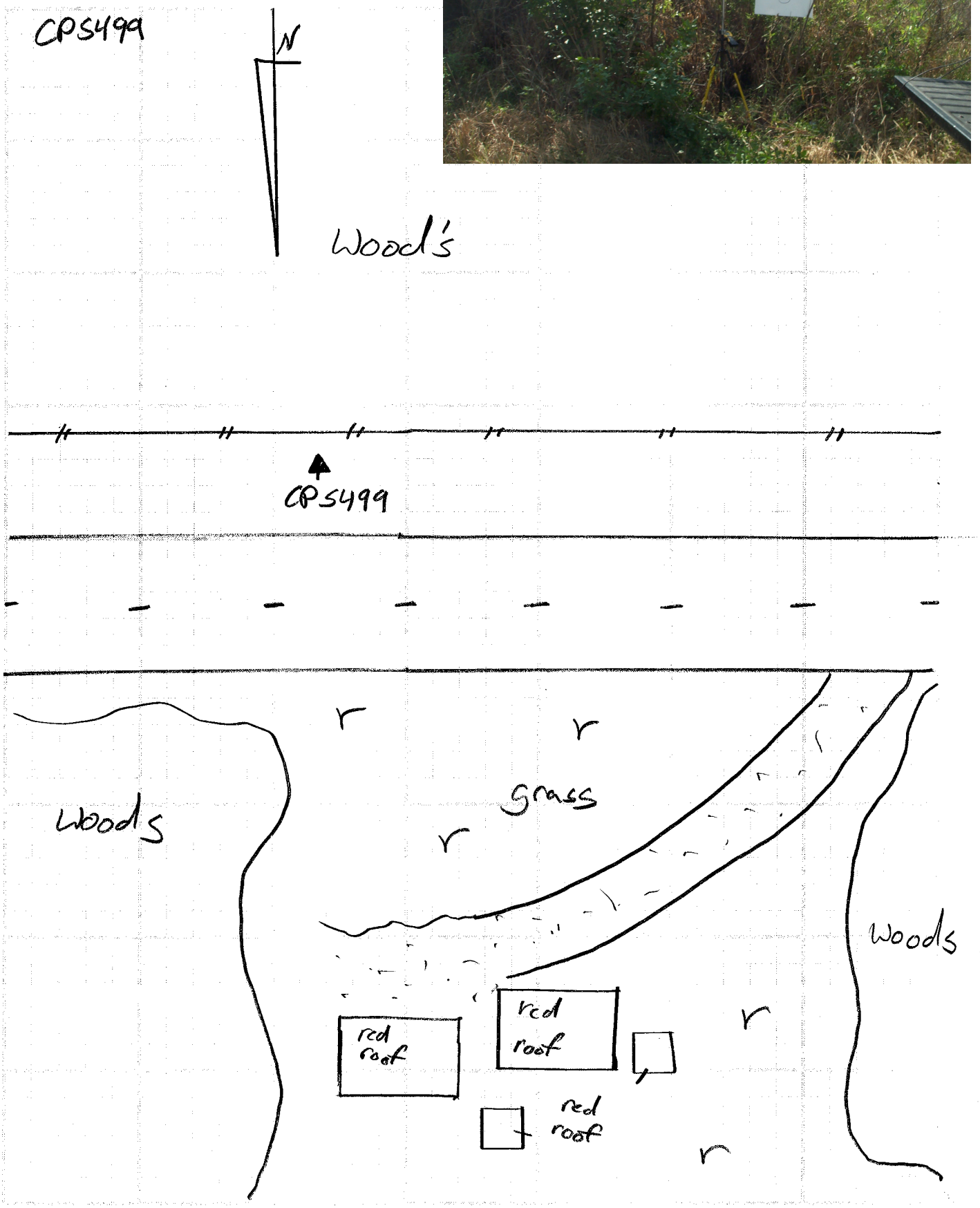
CP 5498



GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJEC
SUBJEC
BY





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(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



CP5500

N

Grass Field

TALL TREE's

1 Story Metal roof

TALL Trees

CP5500

Grass Field

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

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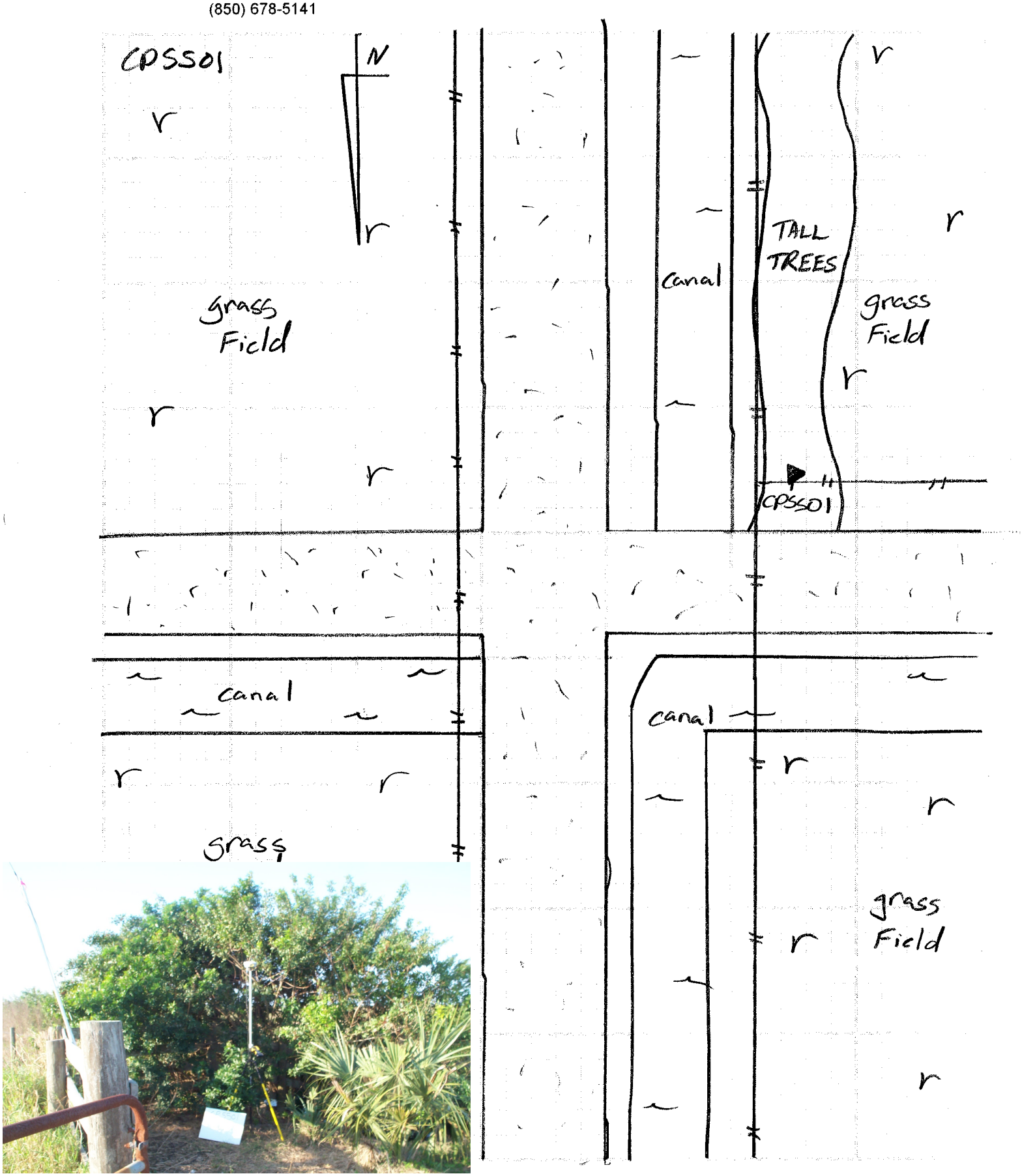

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NICEVILLE, FLORIDA 32578
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PROJECT _____ SHEET _____ OF _____

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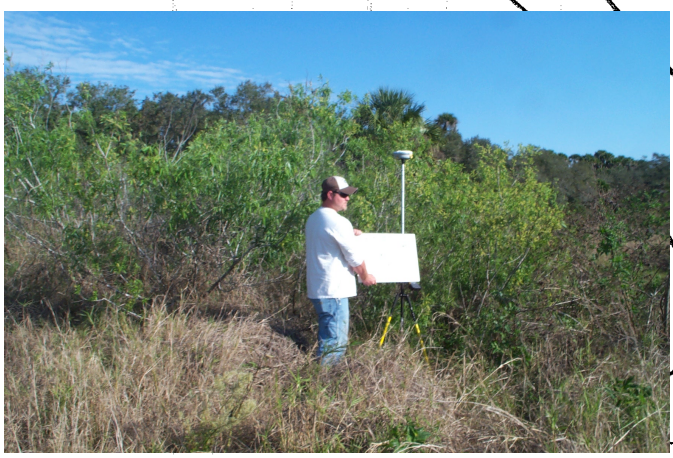

CRSSOZ

N

Wood's

Wood's

CRSSOZ

orange gate

canal

orange grove

orange grove

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ENGINEERS / PLANNERS / SURVEYORS
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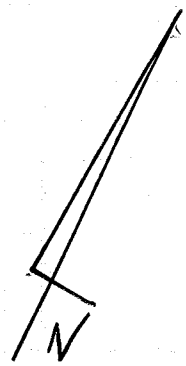
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CPSS03



Wood's

CPSS03

Wood's



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NICEVILLE, FLORIDA 32578
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SUBJECT _____ DATE _____

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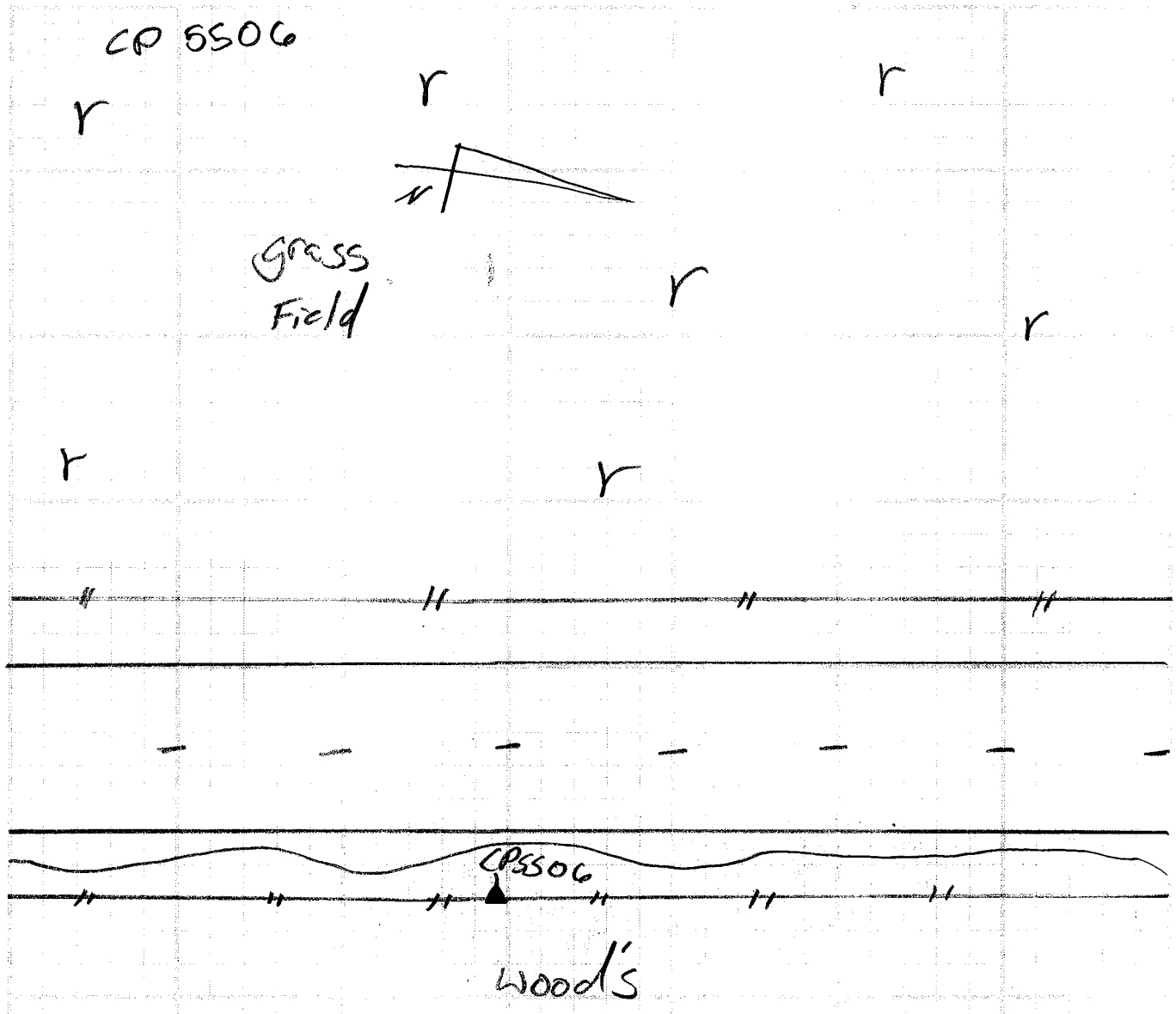



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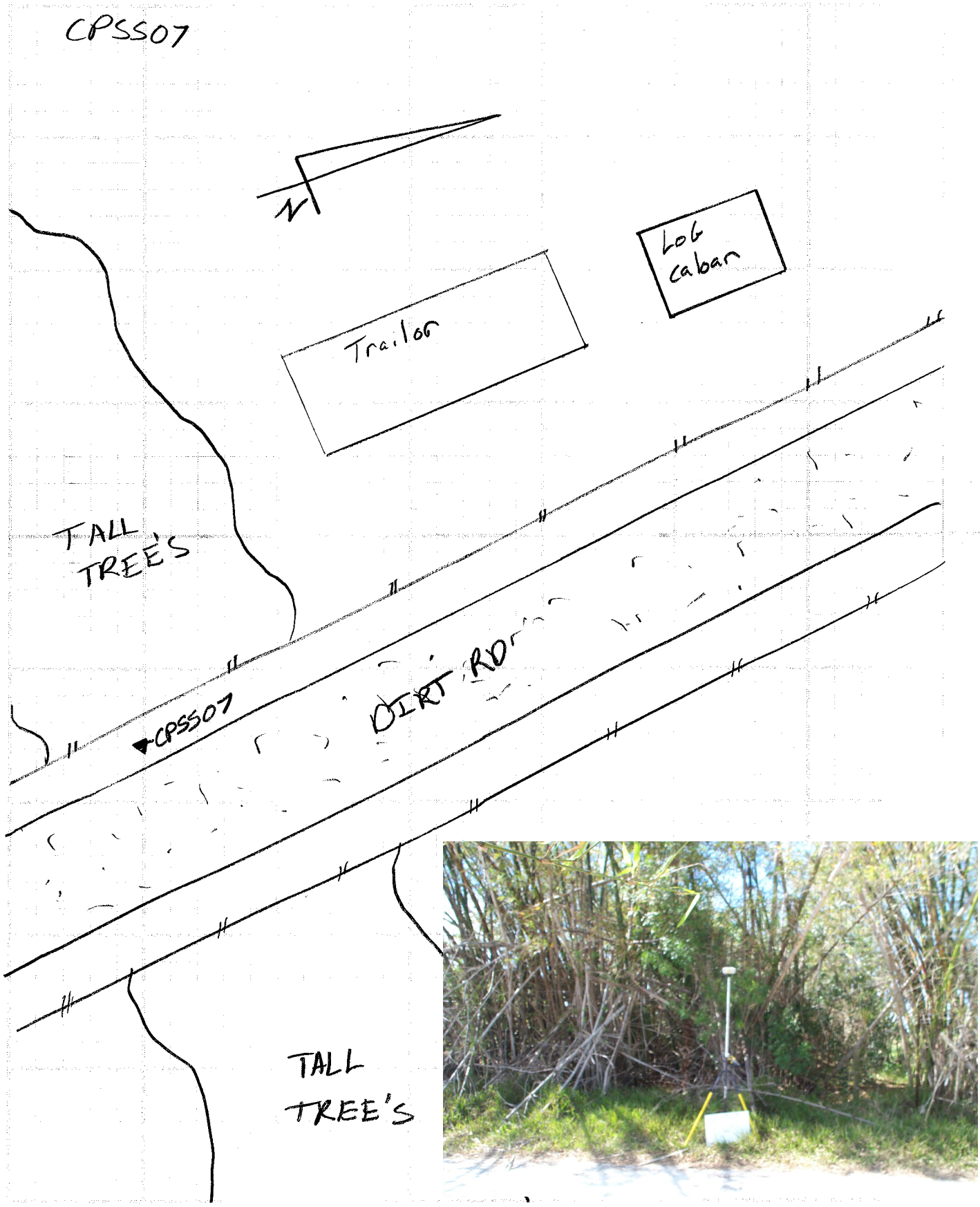

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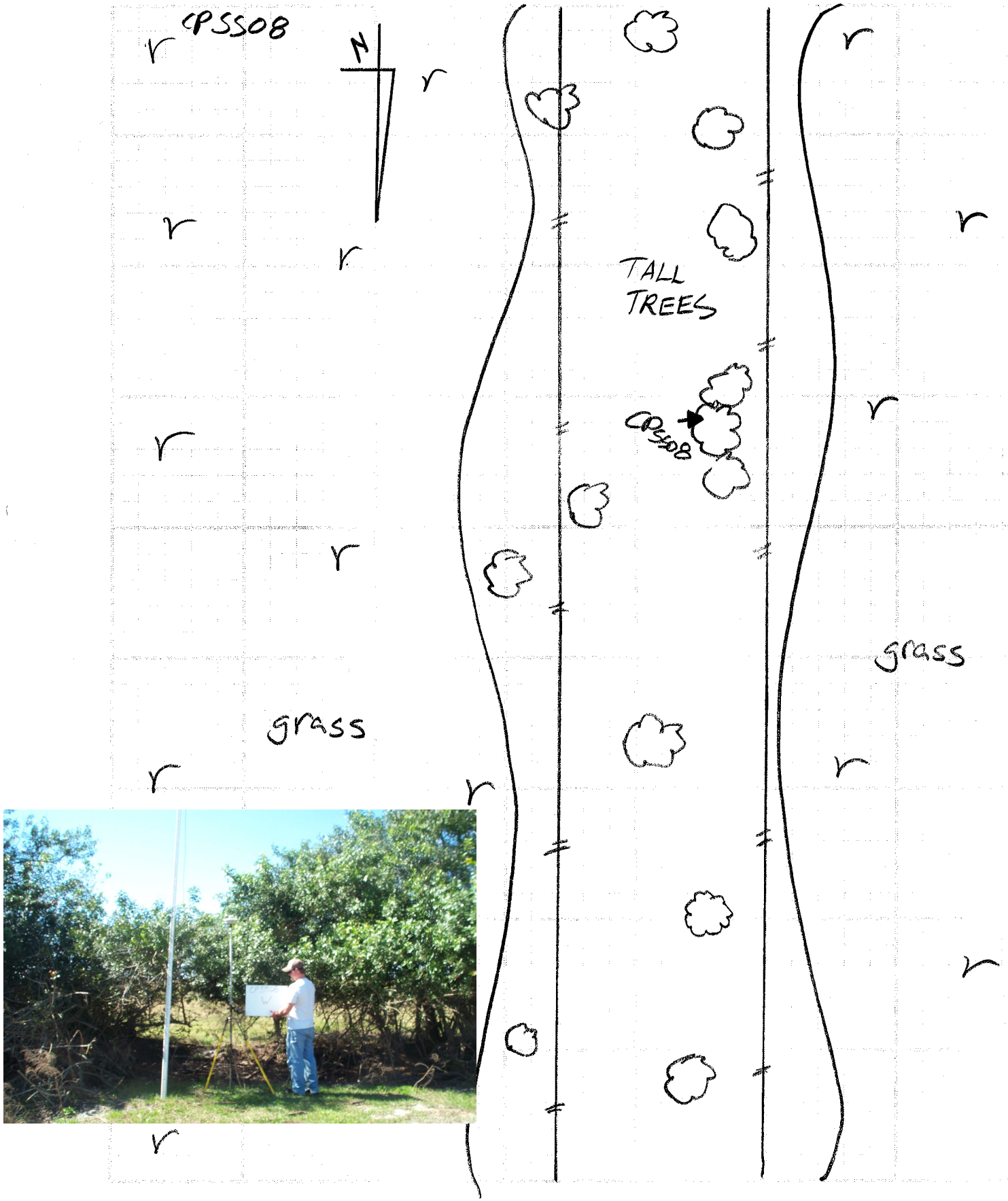

GUSTIN, COTHERN & TUCKER, INC.

ENGINEERS / PLANNERS / SURVEYORS

NICEVILLE, FLORIDA 32578

(850) 678-5141

PROJEC

SUBJEC

BY



CPSSO9

N

CAT FISH POND

Canal

DIRT RD

Grass

TALL TREES

Grass

GUSTIN, COTHERN & TUCKER, INC.
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NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

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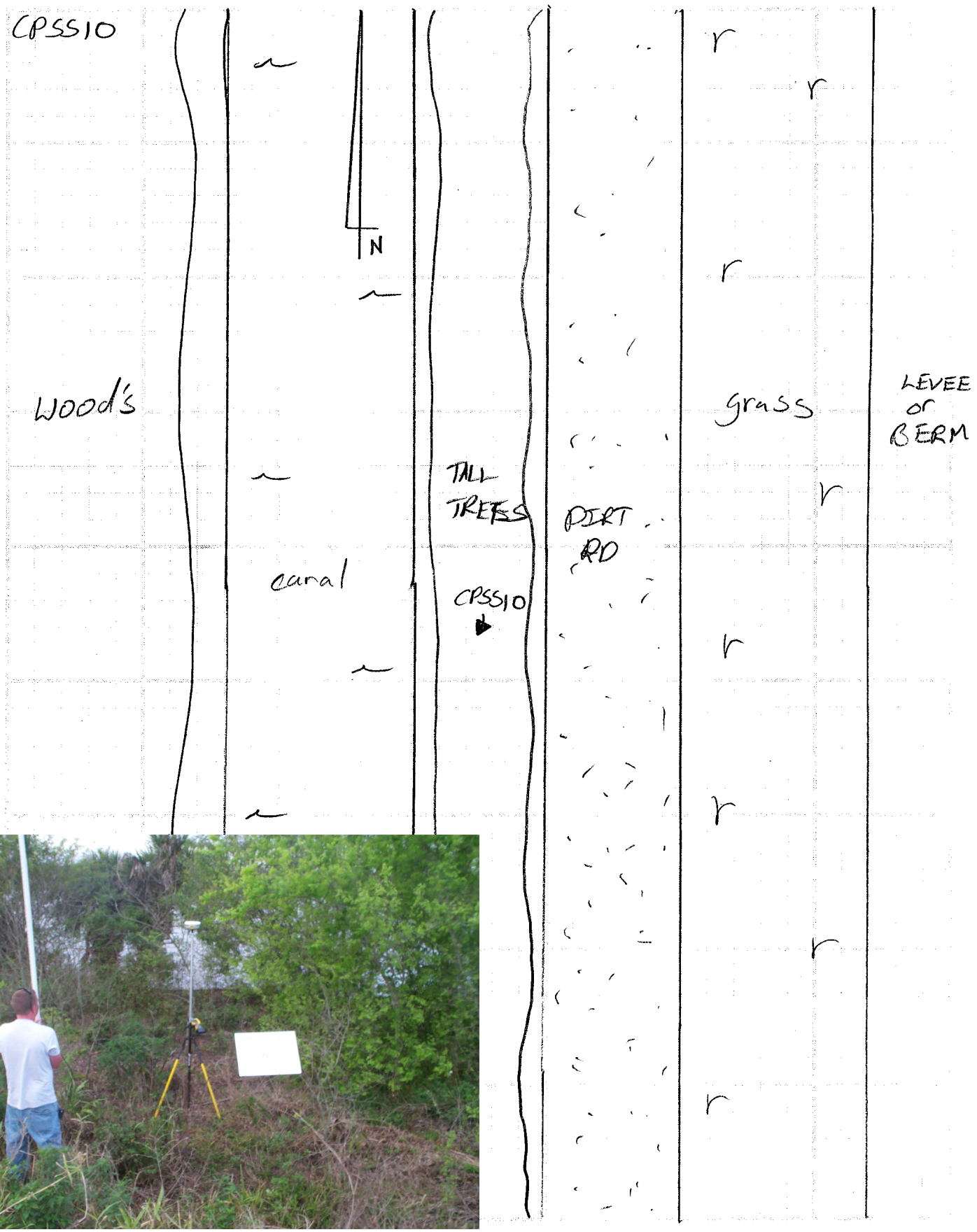

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PROJECT _____ SHEET _____ OF _____

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NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CPSSIZ

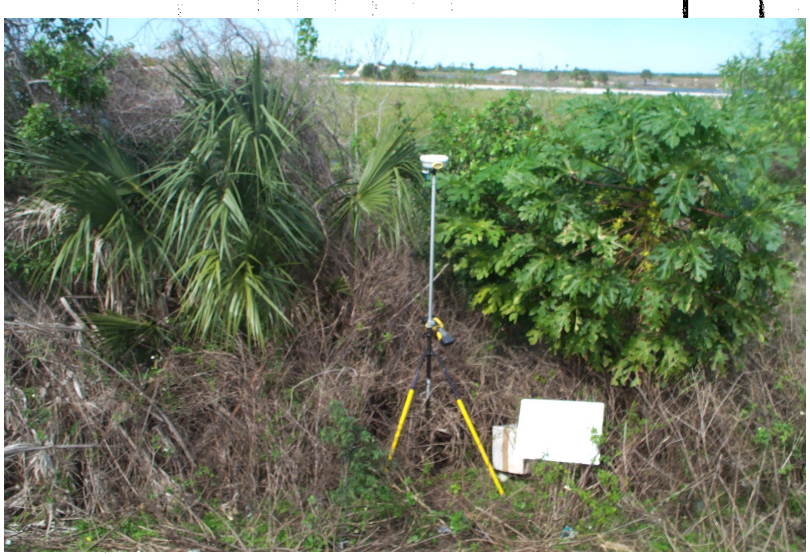
N

WET LANO'S

TALL TREES

Grass FIELD

State RD 78



GUSTIN, COTHERN & TUCKER, INC.

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NICEVILLE, FLORIDA 32578

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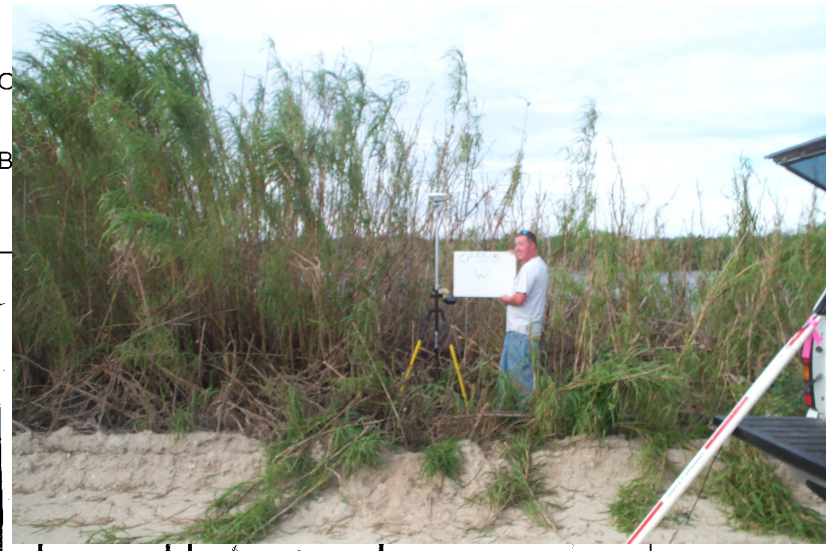
PRO

SUB

BY _



CPSS13

N

Woods

Canal

TALL BAMBOO

CPSS13

grass

LEVEE OR BERM

GUSTIN, COTHERN & TUCKER, INC.
ENGINEERS / PLANNERS / SURVEYORS
NICEVILLE, FLORIDA 32578
(850) 678-5141

PROJE

SUBJE

BY ___



CP SS14

N

1 story
Wood
siding

CP SS14

DIRT RD

Woods

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ENGINEERS / PLANNERS / SURVEYORS
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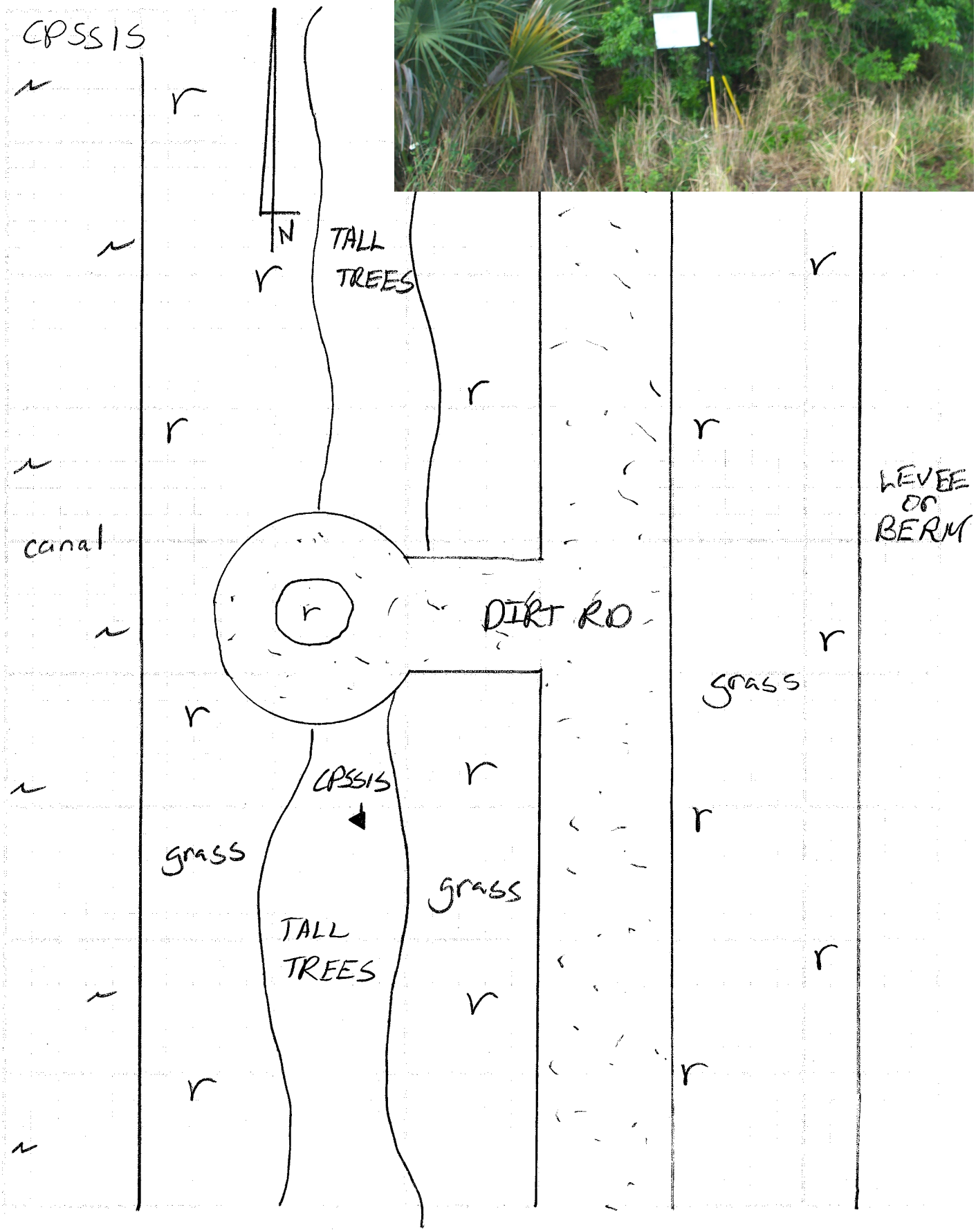

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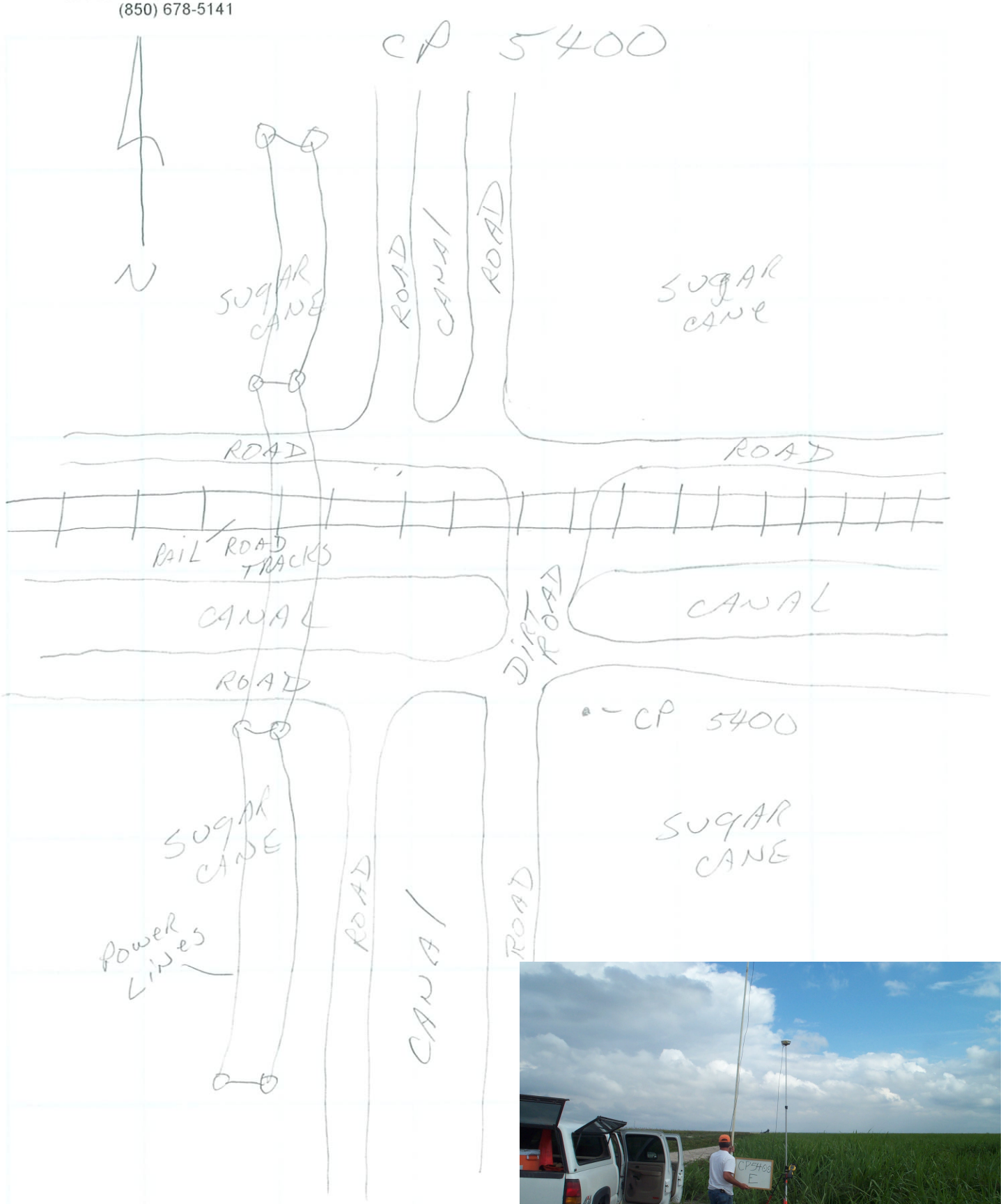

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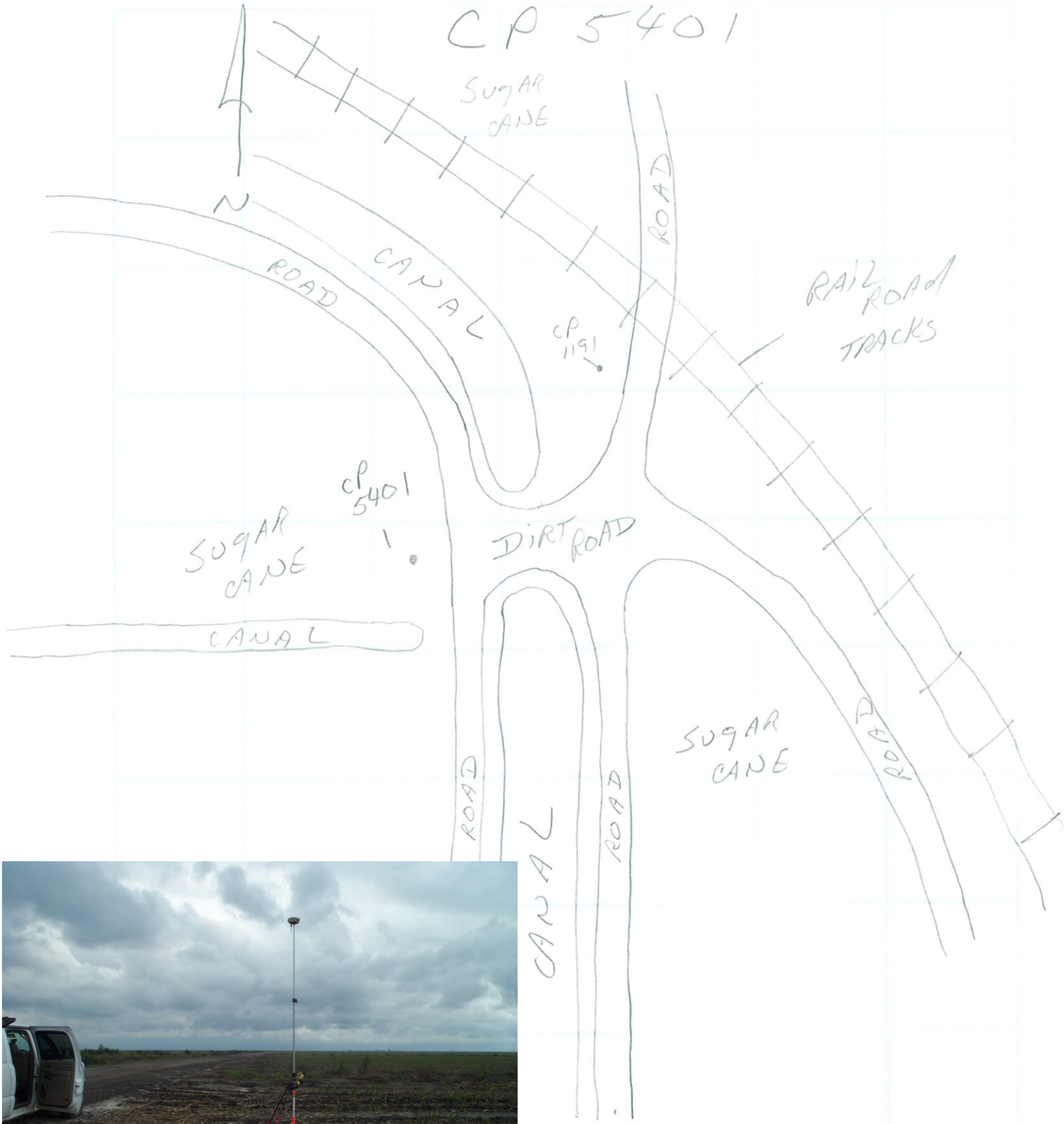

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PROJECT _____ SHEET _____ OF _____

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BY _____ JOB NO. _____

CP 5402



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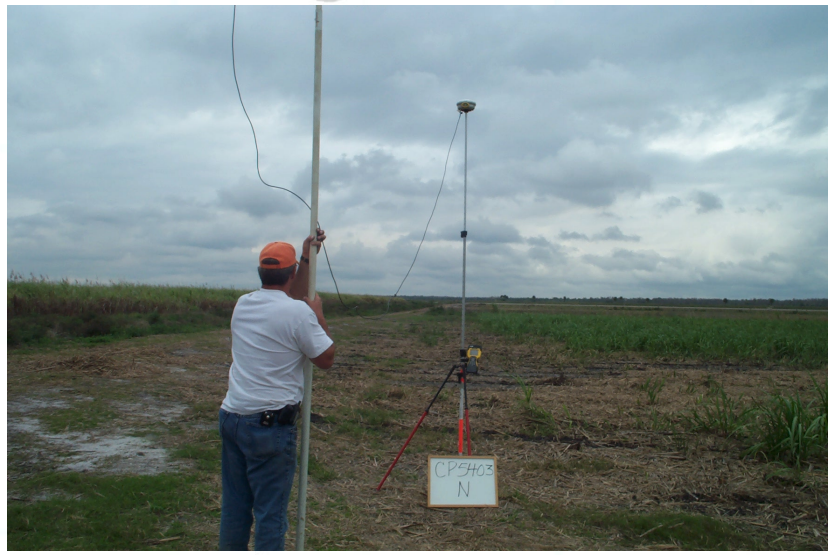
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5403



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PROJECT _____ SHEET _____ OF _____

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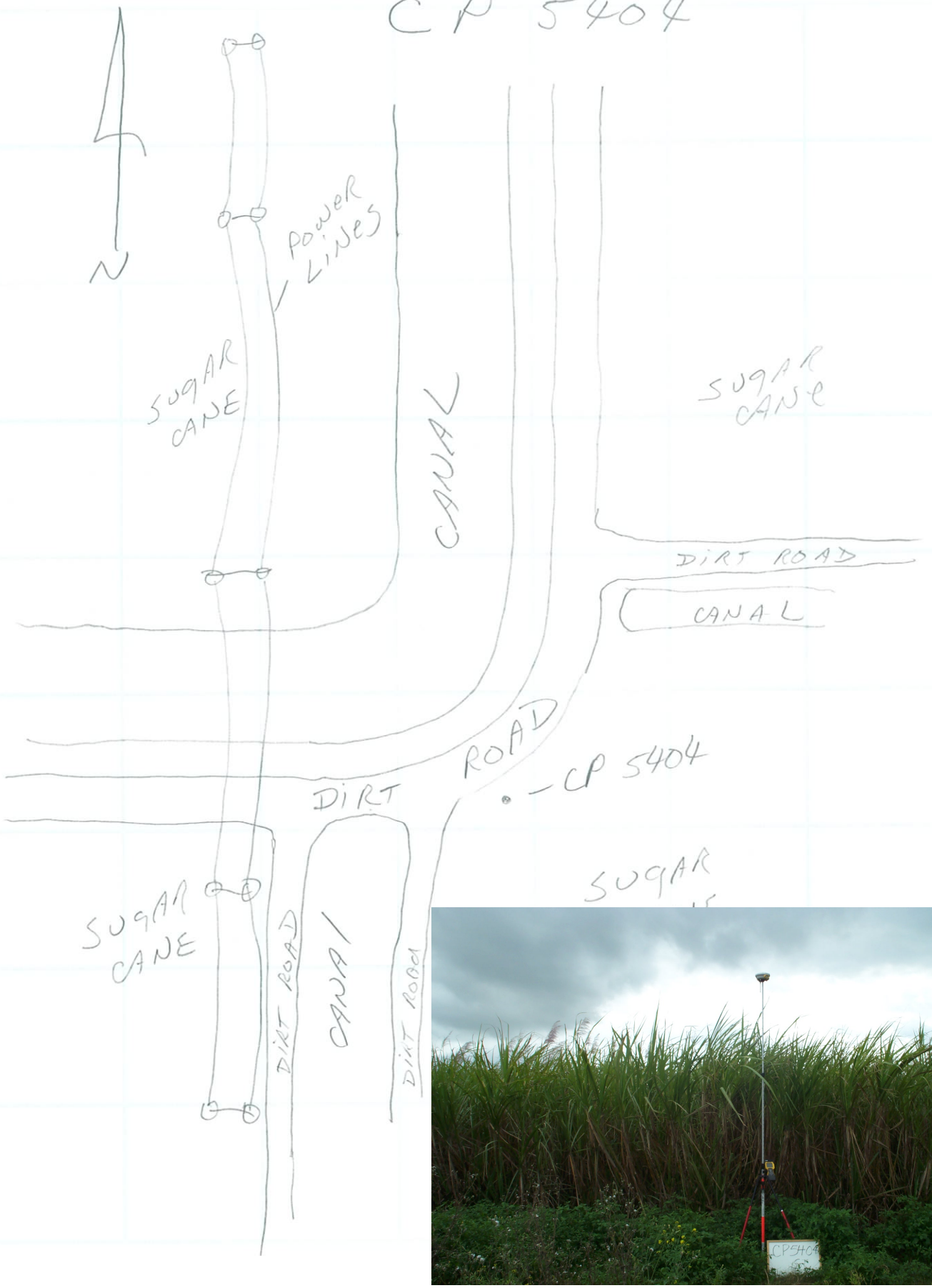
CP 5404



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PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5405

N

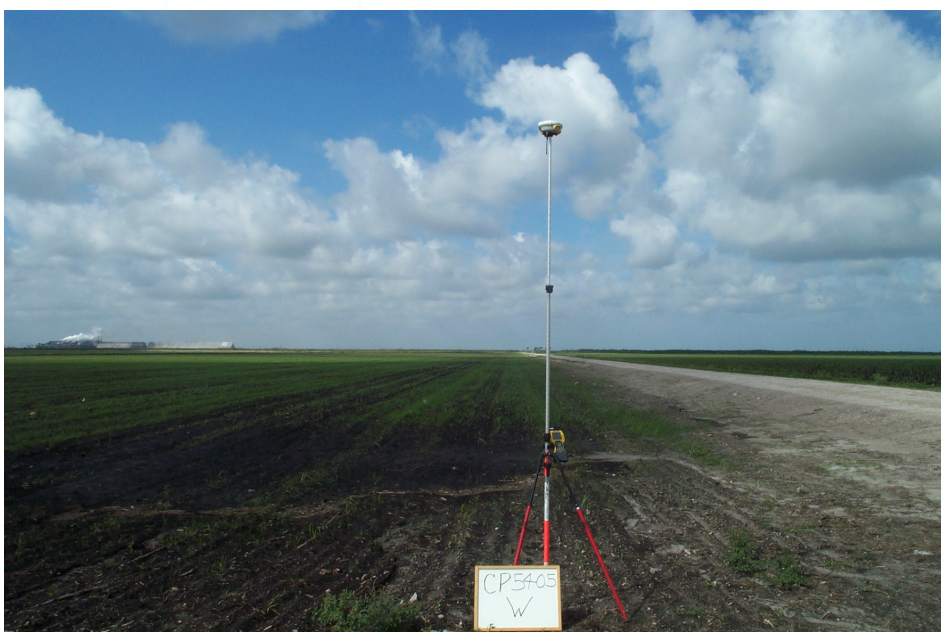
CANAL

CANAL

DIRT ROAD.

CP 5405

CANAL



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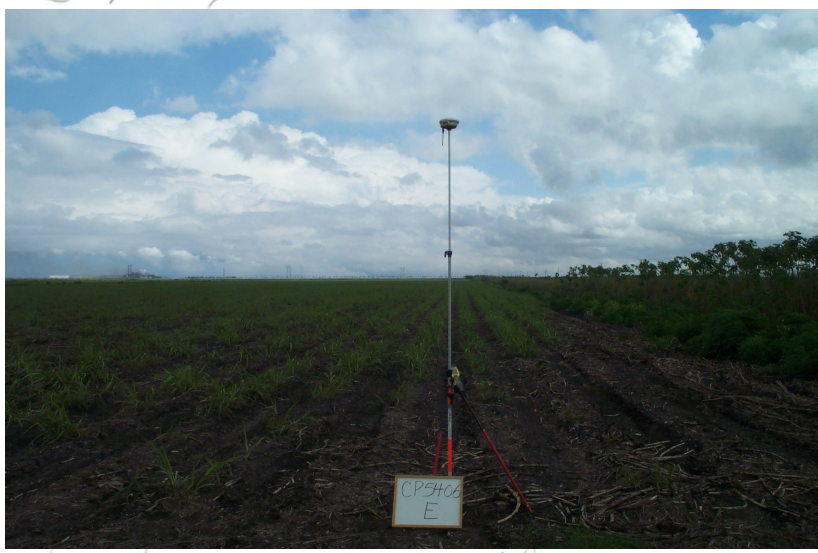
BY _____ JOB NO. _____

CP 5406



N

SUGAR CANE

SUGAR CANE.

CANAL

CP 5406

DIRT ROAD

BRUSH LINE

CANAL

CANAL

HWY 717

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CP 5408

N

SUGAR CANE

CP 5408

DIRT ROAD

RAILROAD TRACKS

SUGAR CANE

ROAD

CANAL

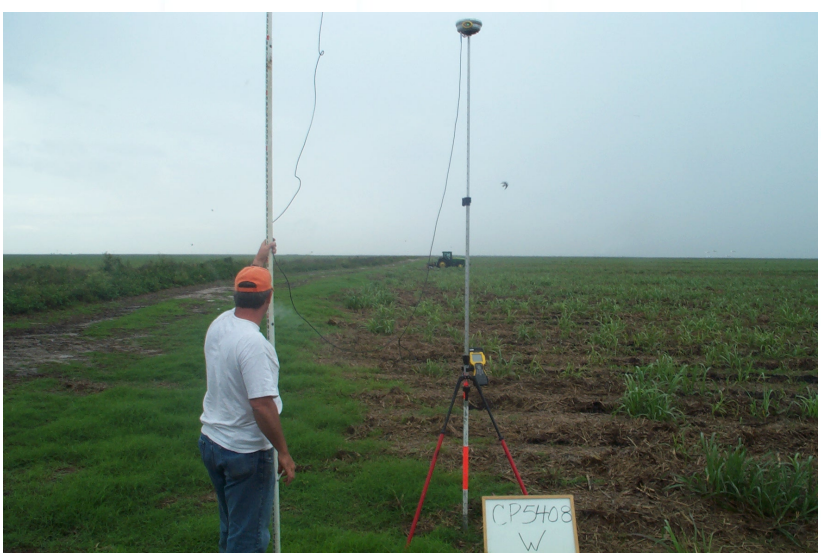
ROAD

CANAL

DIRT ROAD

CANAL

SUGAR CANE



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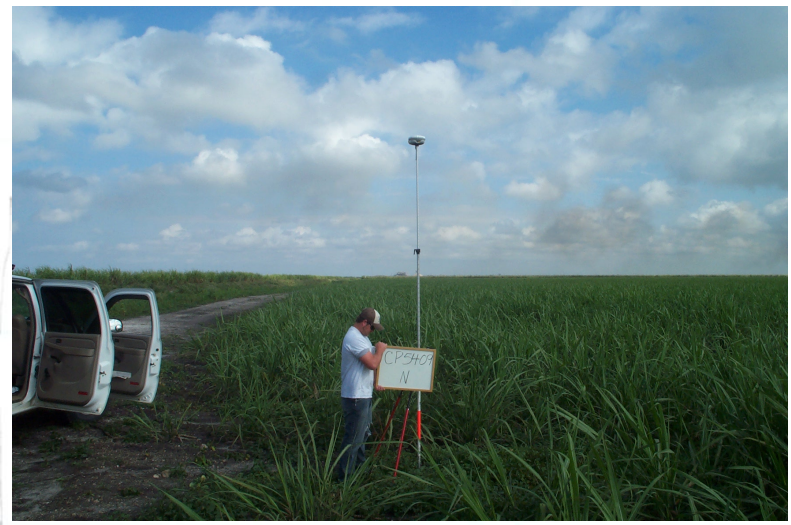
BY _____ JOB NO. _____

CP 5409



N

SUGAR CANE

DIRT ROAD.

CANAL

DIRT ROAD

SUGAR CANE

CP 5409

DIRT ROAD

CANAL

HWY 12

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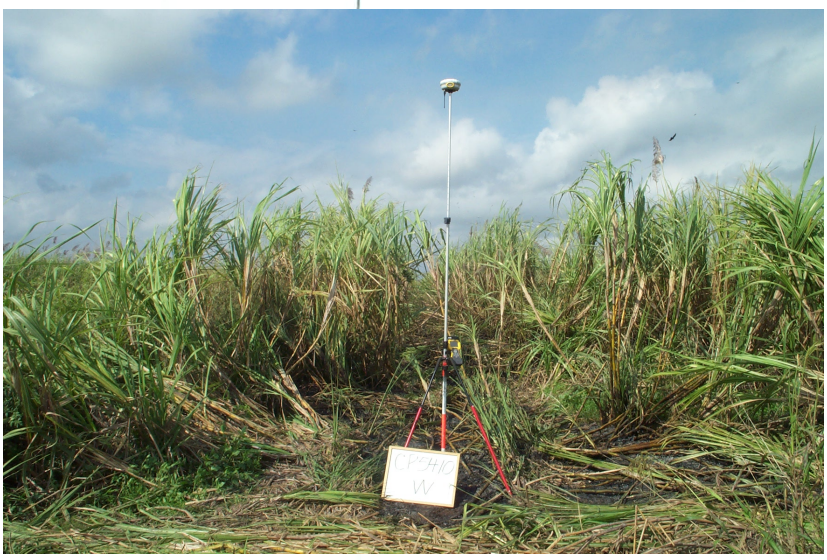
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5410



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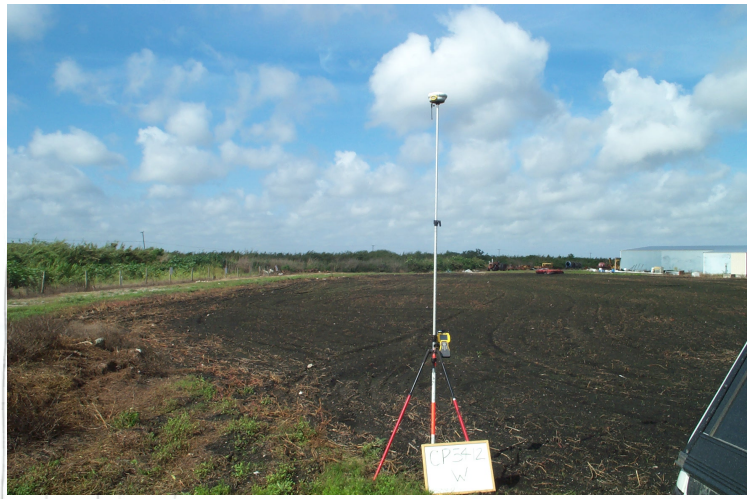
BY _____ JOB NO. _____

CP 5412



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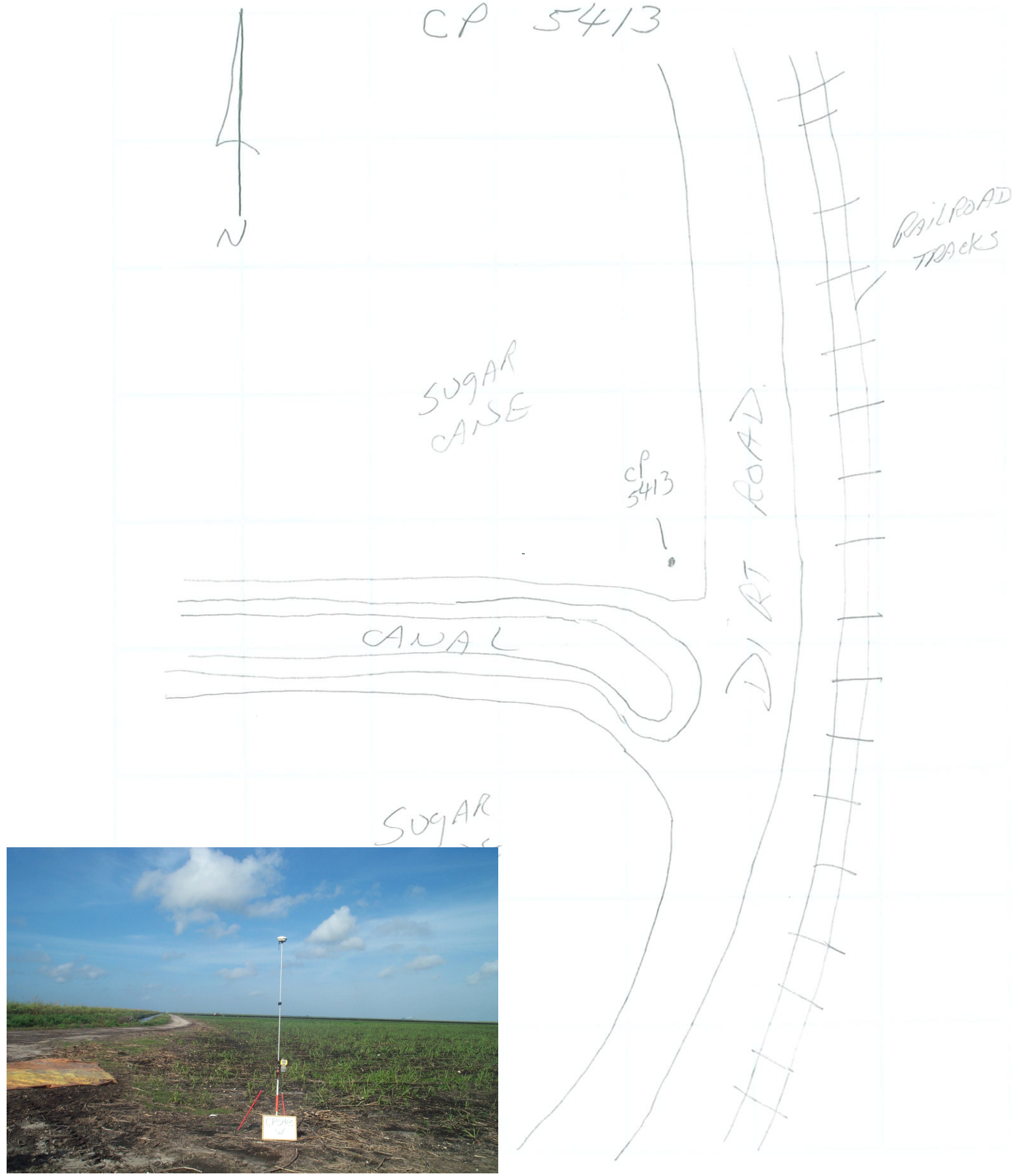

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BY _____ JOB NO. _____

CP 5414



N

DIRT ROAD

CANAL

DIRT ROAD

CORN

SUGAR CANE

CP 5414

CANAL

DIRT ROAD

CANAL

SUGAR CANE

CANAL

SUGAR CANE

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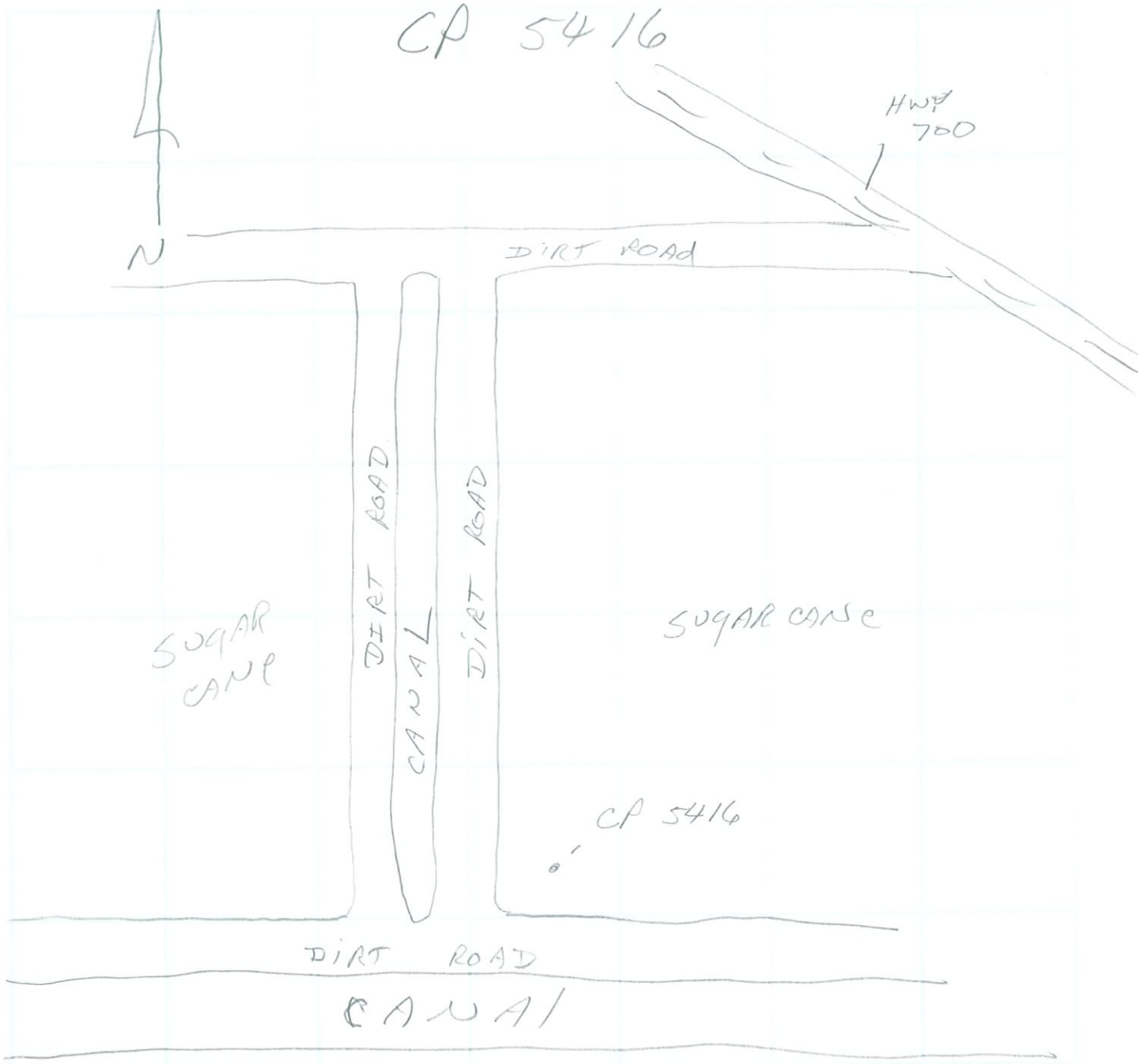
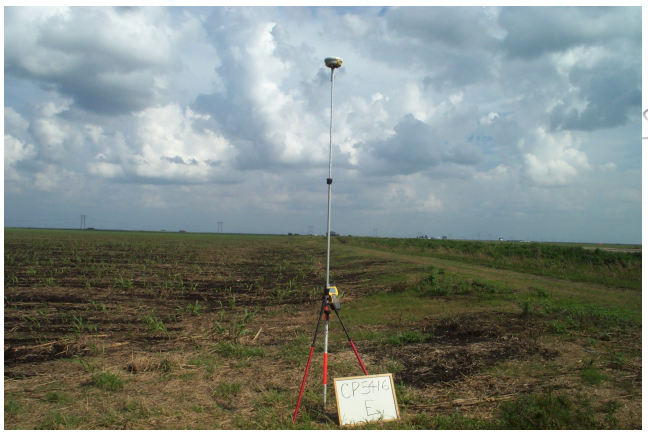
SUBJECT _____ DATE _____

BY _____ JOB NO. _____





SUGAR CANE

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CP 5417



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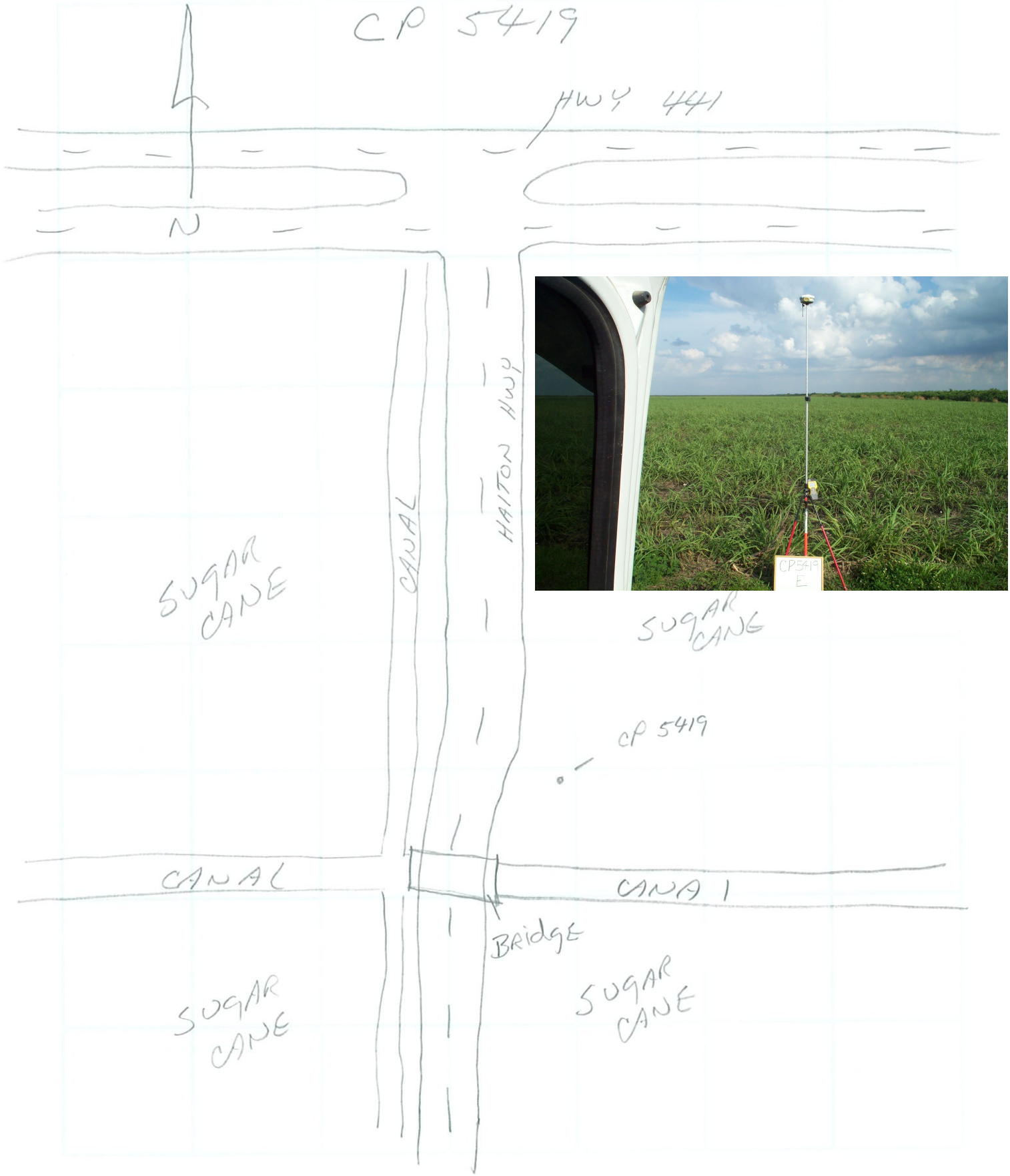
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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PROJECT _____ SHEET _____ OF _____

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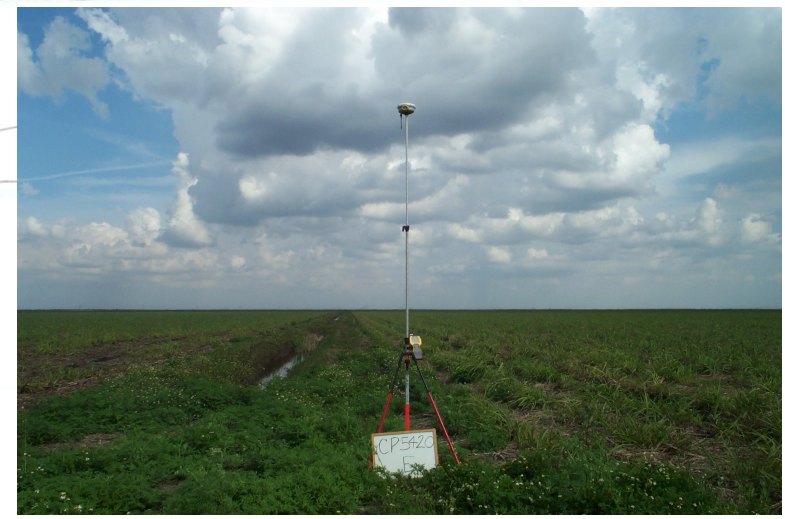

SUGAR CANE

SUGAR CANE

Dirt Road

CANAL

Dirt ROAD

CANAL

CP 5420

SUGAR CANE

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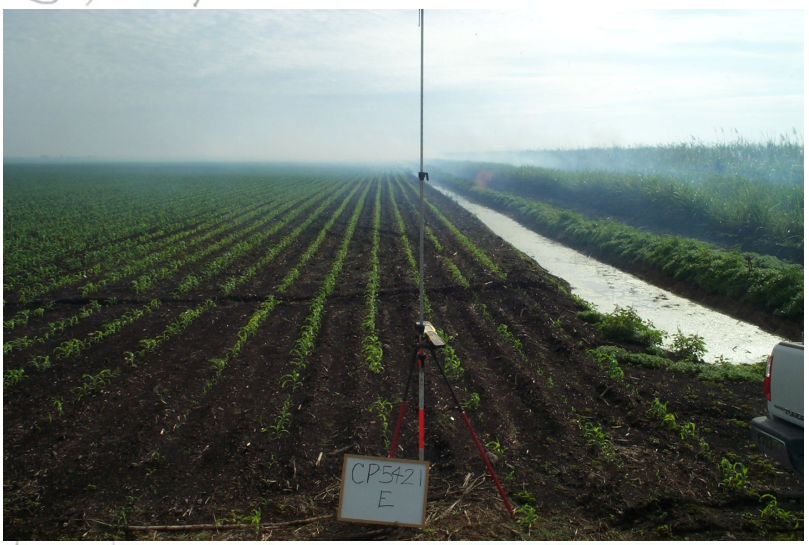
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5421





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BY _____ JOB NO. _____

CP 5422

N



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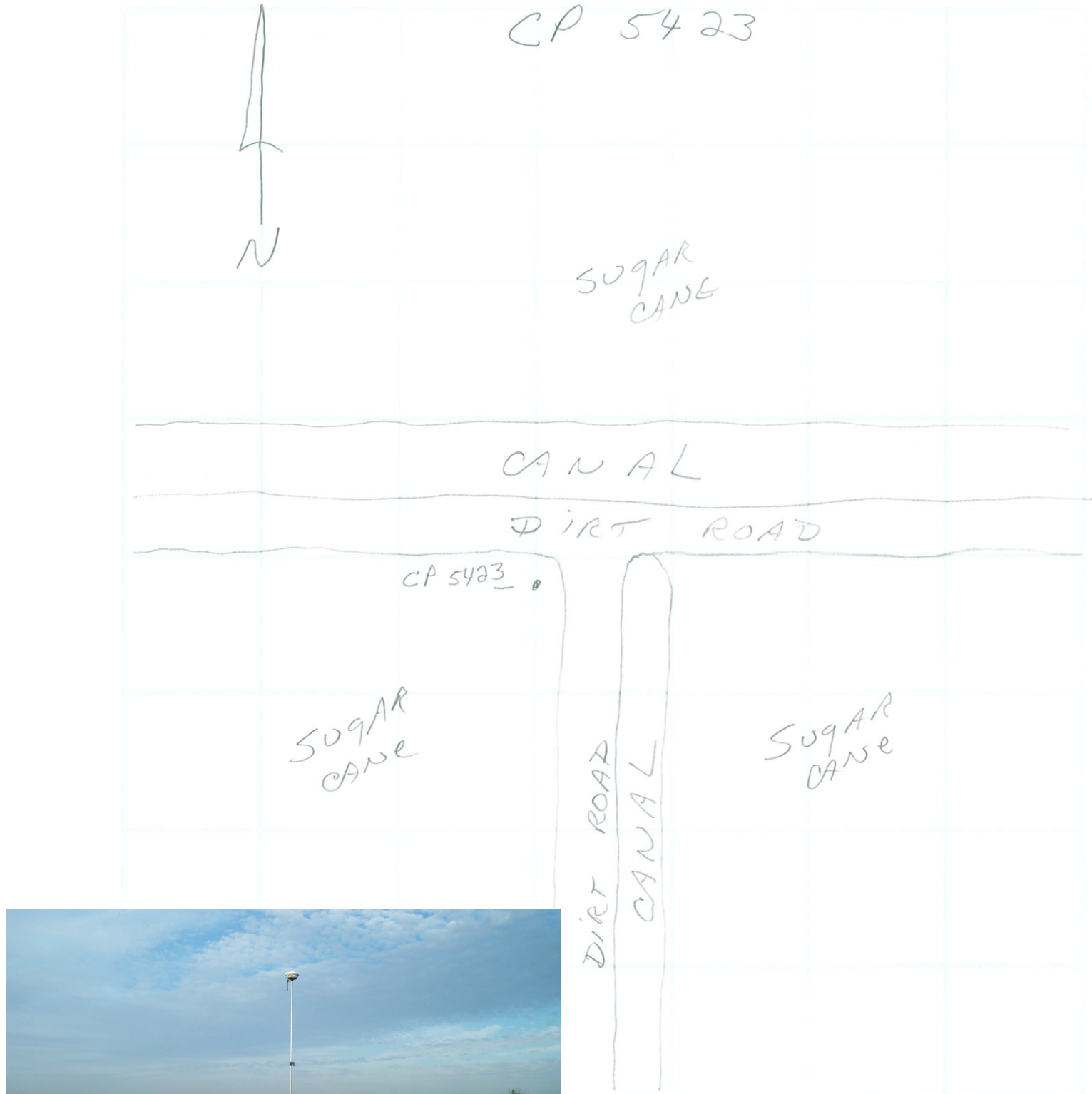
SUBJECT _____ DATE _____

BY _____ JOB NO. _____



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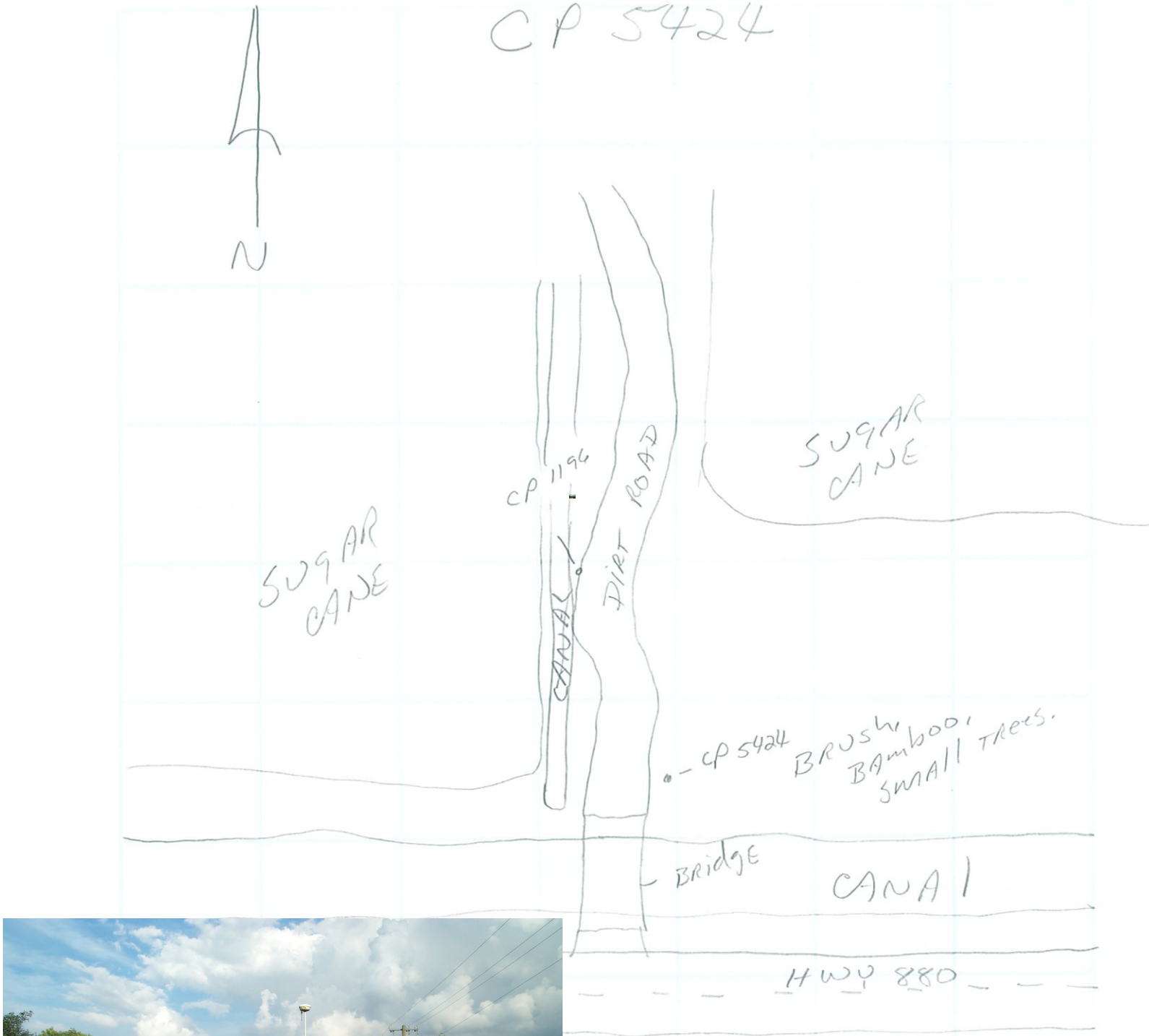
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____





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BY _____ JOB NO. _____



CP 5426

N

HWY 280

CANAL

DIRT ROAD

SUGAR CANE

CORN

CP 5426

DIRT ROAD

CANAL

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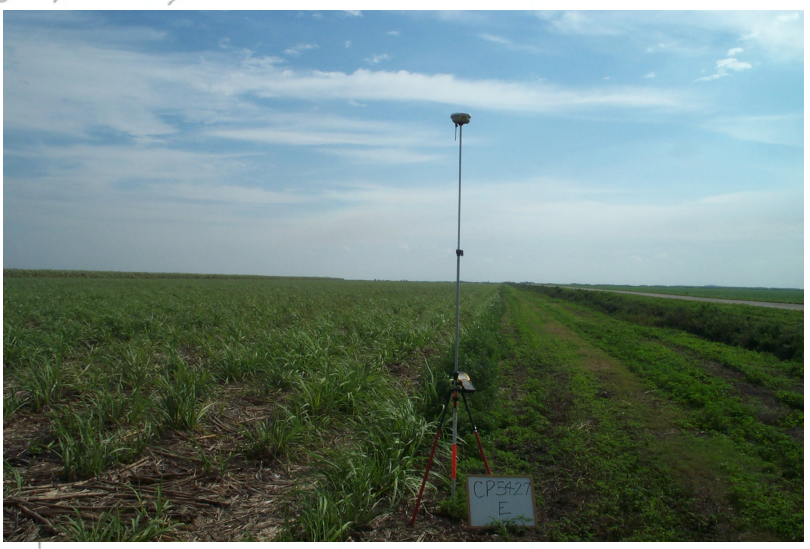
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5427



N

SUGAR CANE

CANAL

DIRT ROAD

SUGAR CANE

CP 5427

CANAL

DIRT ROAD

SUGAR CANE

CANAL

DIRT ROAD

CANAL

SUGAR CANE

CANAL

CORN

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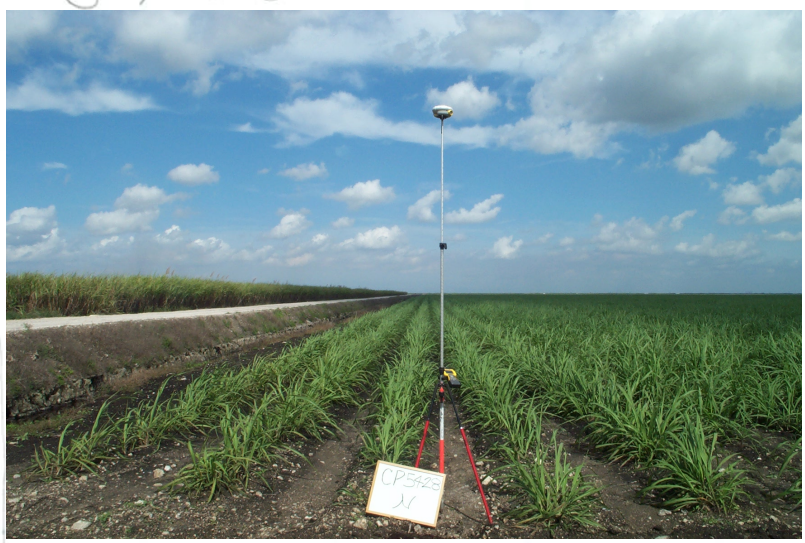
PROJECT _____ SHEET _____ OF _____

SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5428



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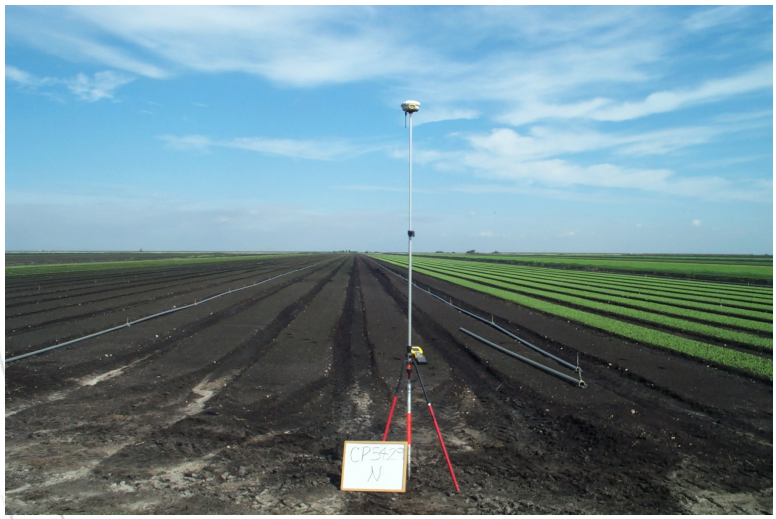
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5429



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BY _____ JOB NO. _____

CP 5430

N

SUGAR CANE

DIRT ROAD

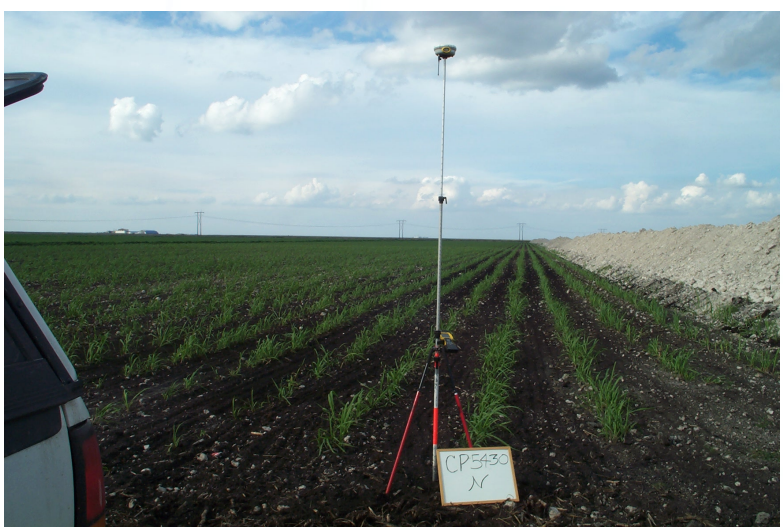
CANAL

DIRT ROAD

CANAL

SUGAR CANE

PUMP STATION



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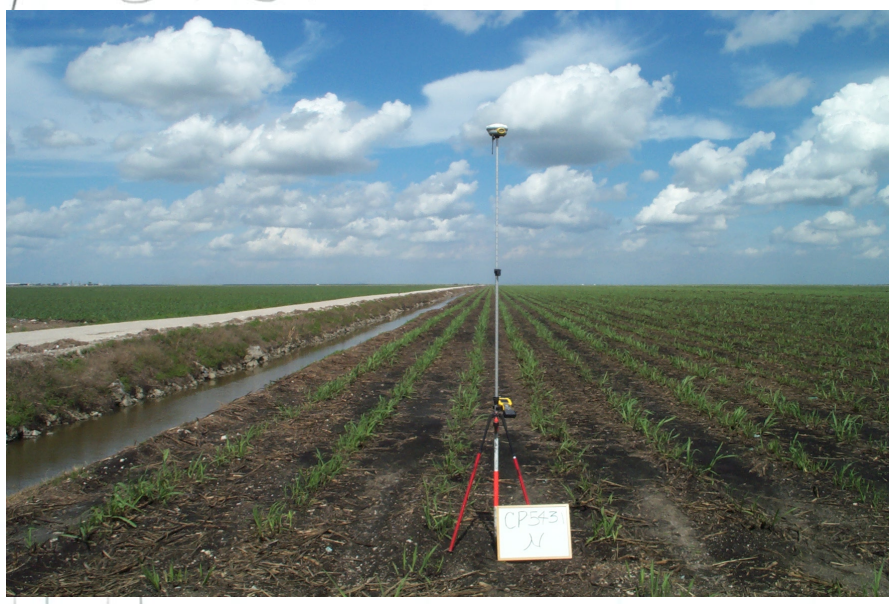
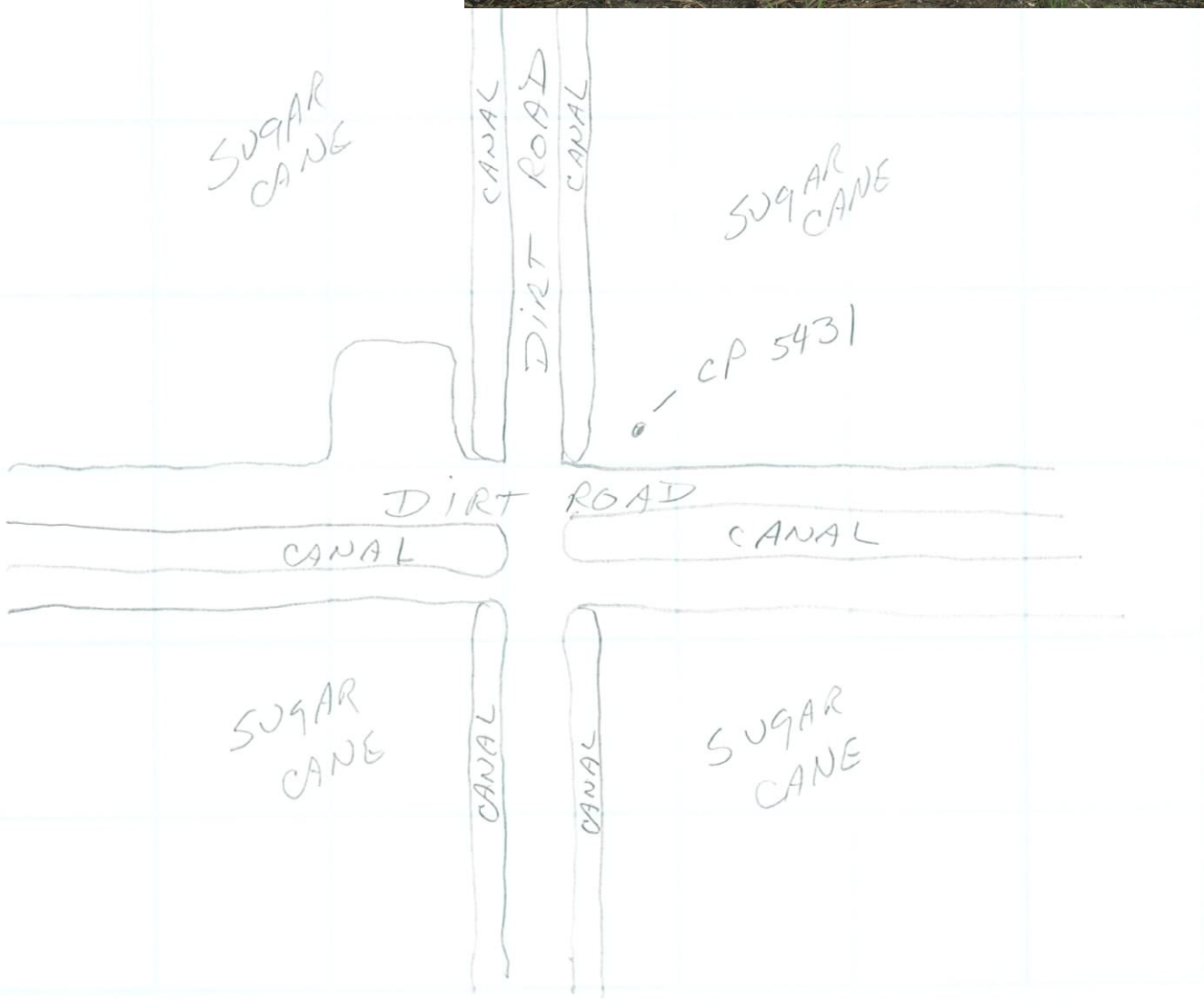
BY _____ JOB NO. _____

CP 5431





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PROJECT _____ SHEET _____ OF _____

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BY _____ JOB NO. _____

CP 5432

N

SUGAR CANE

CANAL

DIRT ROAD

SUGAR CANE

DIRT ROAD

CANAL

DIRT ROAD

DIRT ROAD

CP5432

ROAD

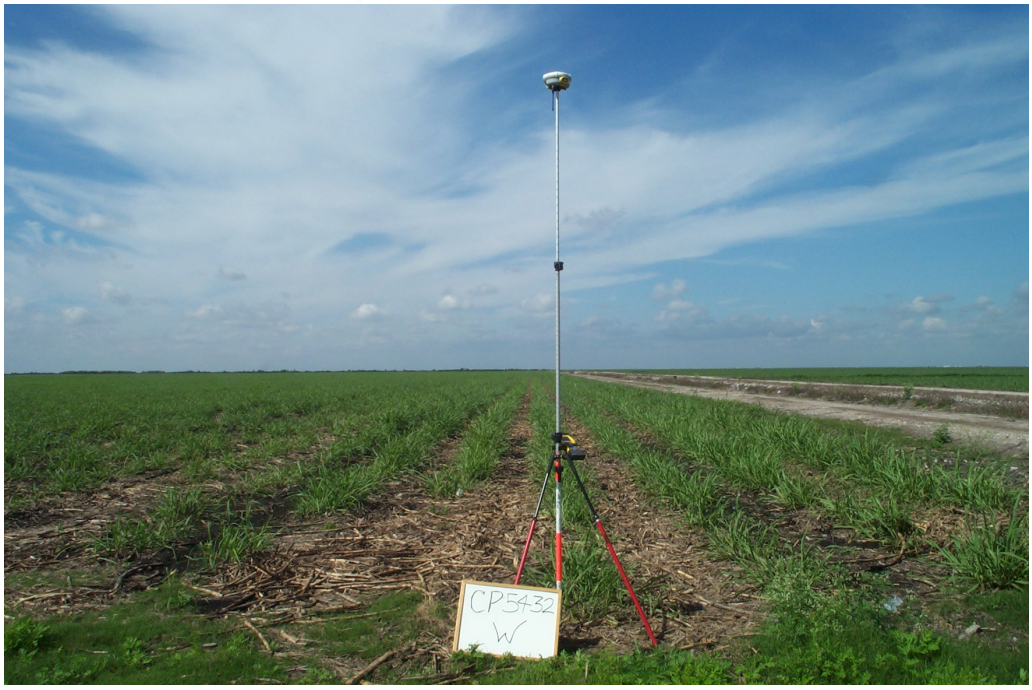
SUGAR CANE

SUGAR CANE

DIRT ROAD

CANAL

DIRT ROAD



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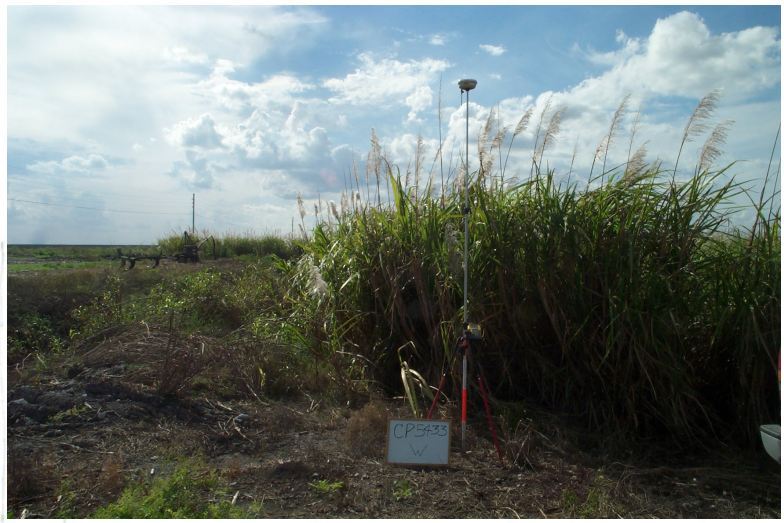
SUBJECT _____ DATE _____

BY _____ JOB NO. _____

CP 5433



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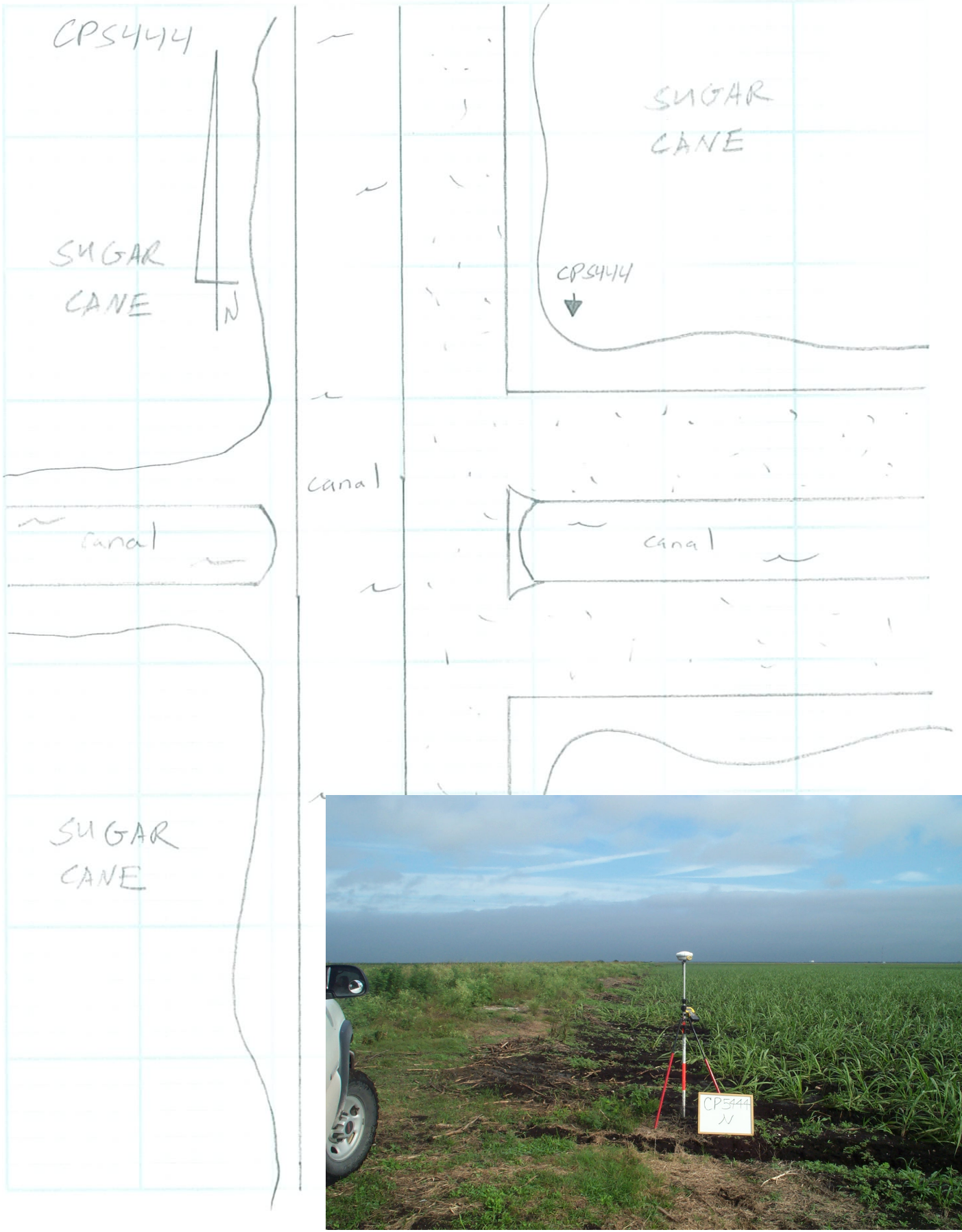

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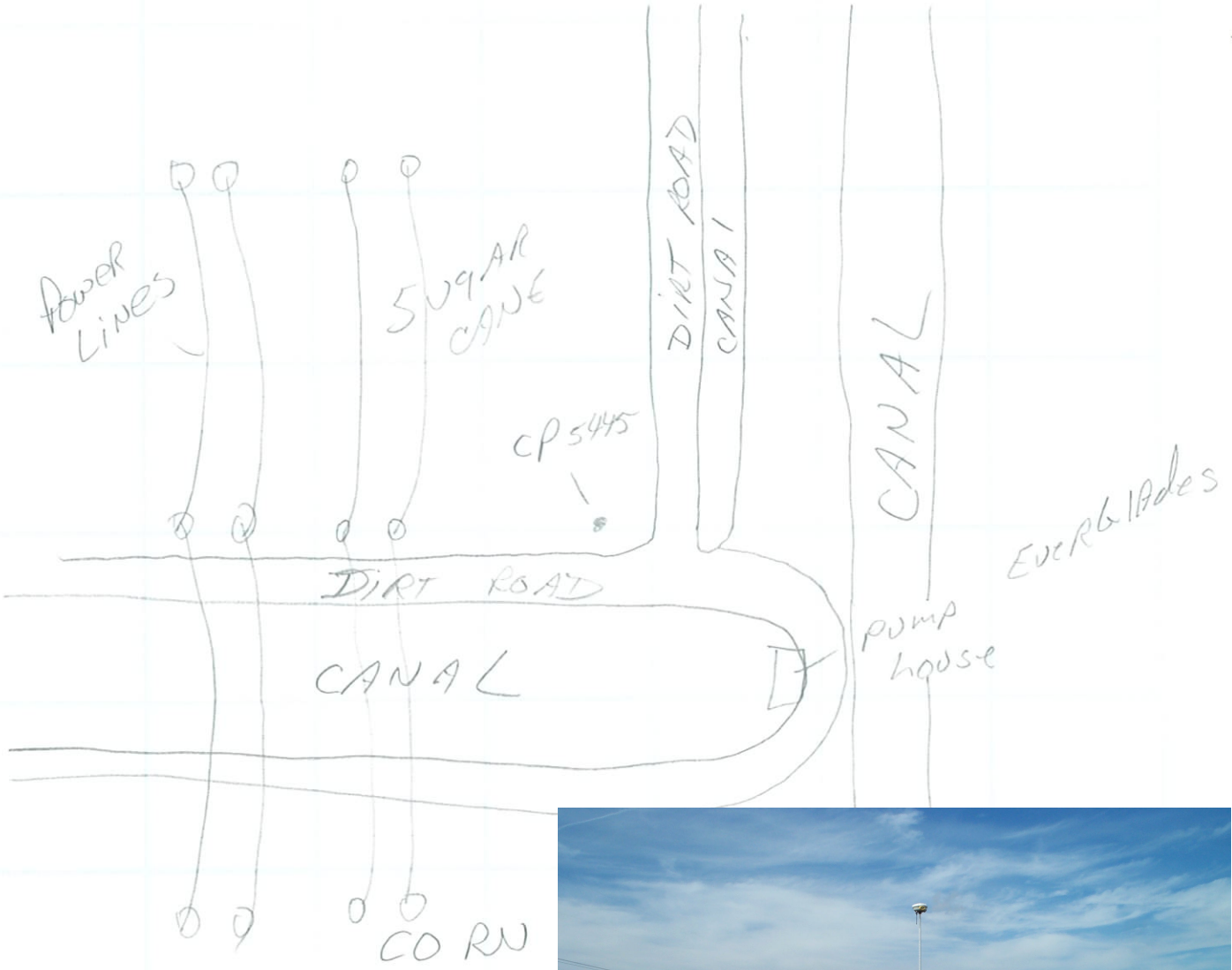
CP 5445





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BY _____ JOB NO. _____

CP 5449

N

SUGAR CANE

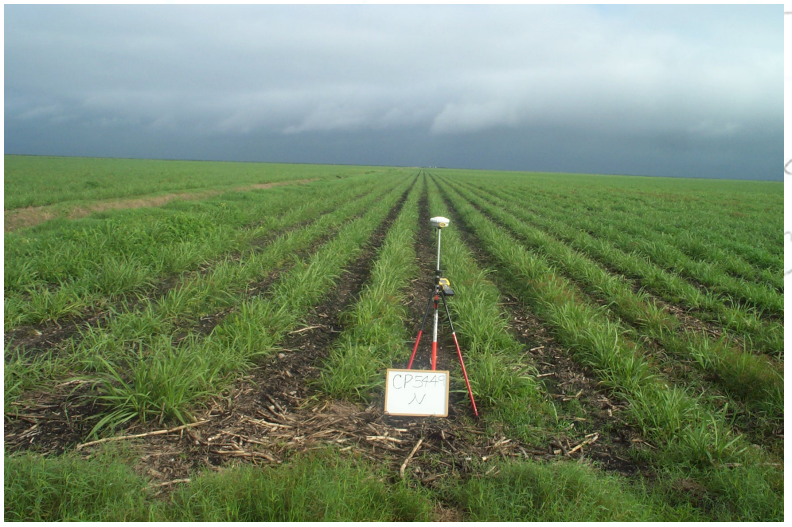
SUGAR CANE

CP 5449

CANAL

DIRT ROAD

CANAL



SUGAR CANE

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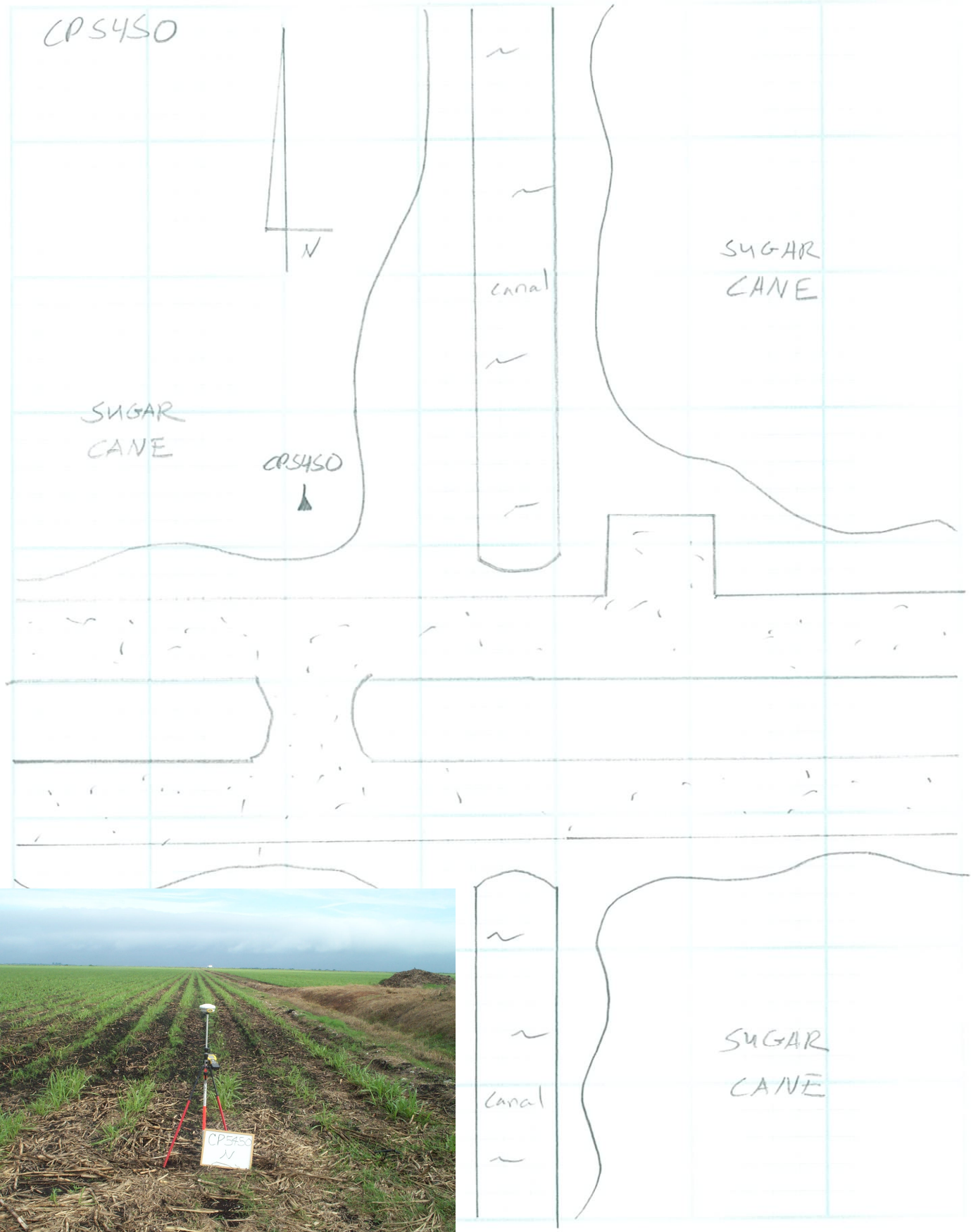

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CP 5452



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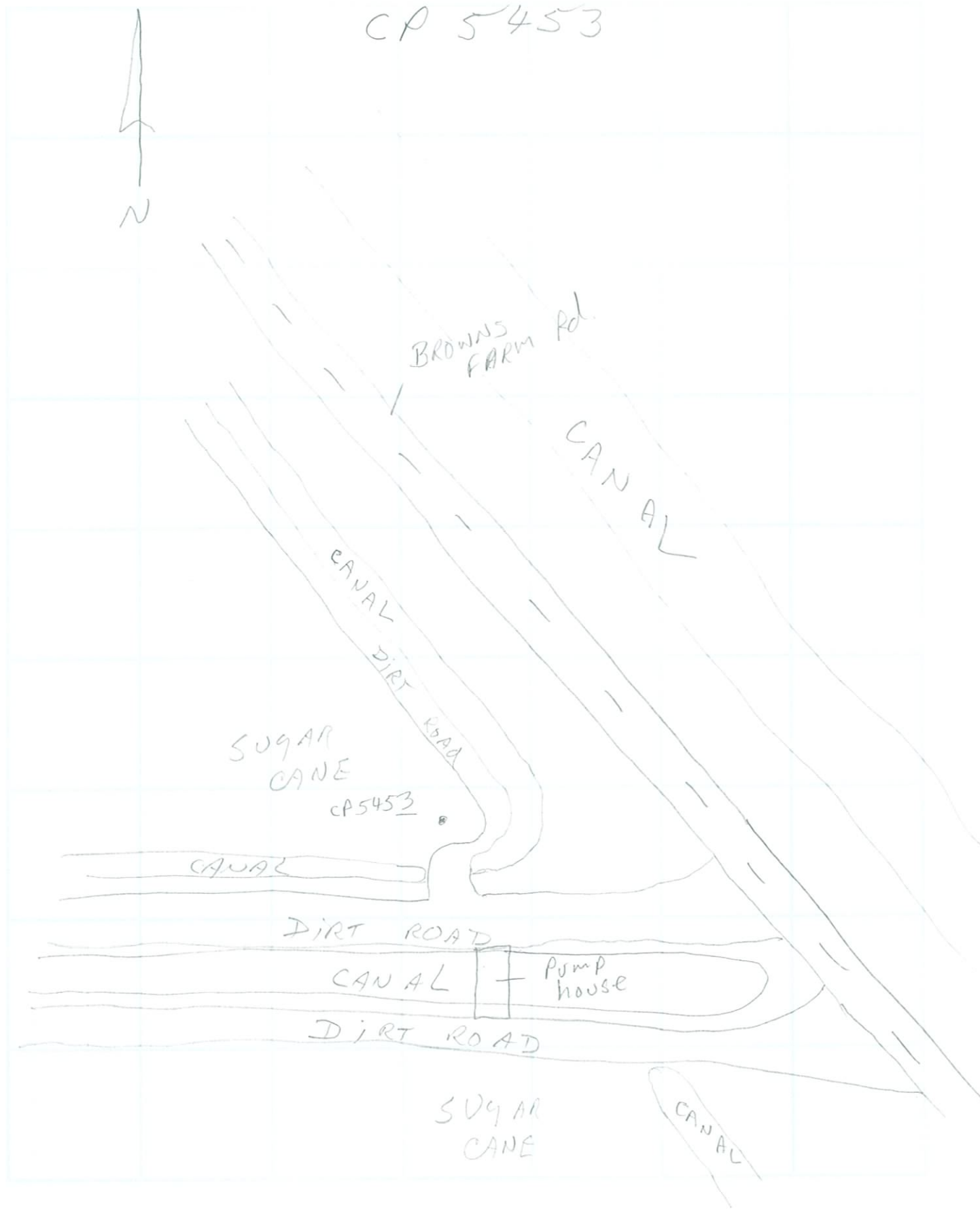

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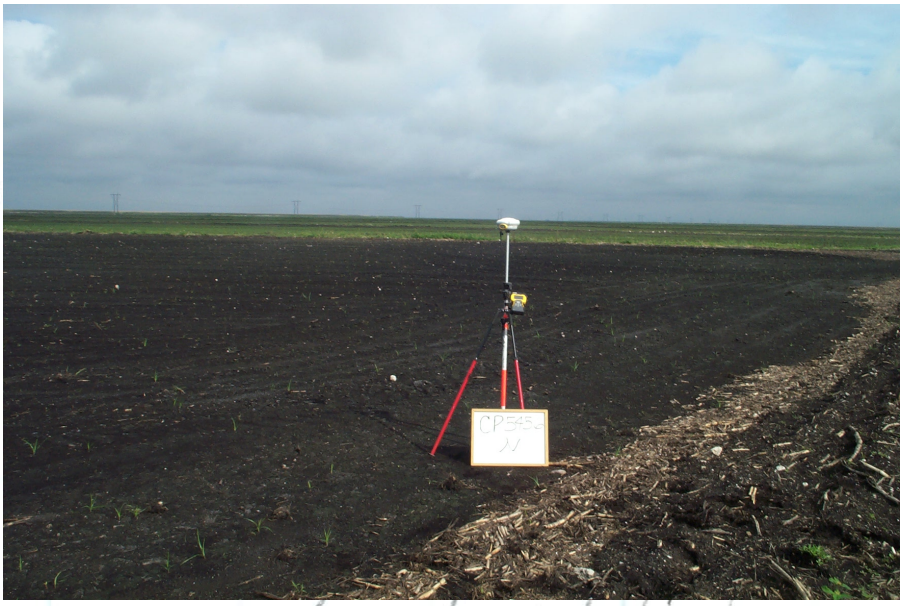

CPS456

N

SUGAR CANE

CPS456

DIRT RD

Canal

SUGAR CANE

4 ~ PRIMARY CONTROL DATA SHEETS– HHD-LAKE OKEECHOBEE AREA ~ 4

```
AD0692 ***********************************************************************
 AD0692  CBN          -  This is a Cooperative Base Network Control Station.
 AD0692  DESIGNATION  -  872 2625 TIDAL 1  (CONTROL POINT)
 AD0692  PID          -  AD0692
 AD0692  STATE/COUNTY-  FL/PALM BEACH
 AD0692  USGS QUAD    -  BELLE GLADE (1984)
 AD0692
 AD0692                        *CURRENT SURVEY CONTROL
 AD0692 ______________________________________________________________________
 AD0692* NAD 83(1999)-  26 39 48.66428(N)    080 42 44.93607(W)     ADJUSTED
 AD0692* NAVD 88      -         6.059  (meters)      19.88   (feet)  ADJUSTED
 AD0692 ______________________________________________________________________
 AD0692  X            -     920,513.061 (meters)                    COMP
 AD0692  Y            -  -5,628,927.310 (meters)                    COMP
 AD0692  Z            -   2,844,938.605 (meters)                    COMP
 AD0692  LAPLACE CORR-          -1.01  (seconds)                    DEFLEC99
 AD0692  ELLIP HEIGHT-         -18.932 (meters)          (04/12/01) GPS OBS
 AD0692  GEOID HEIGHT-         -25.00  (meters)                    GEOID03
 AD0692  DYNAMIC HT   -           6.050 (meters)      19.85  (feet)  COMP
 AD0692  MODELED GRAV-     979,103.7   (mgal)                      NAVD 88
 AD0692
 AD0692  HORZ ORDER   -  A
 AD0692  VERT ORDER   -  FIRST     CLASS II
 AD0692  ELLP ORDER   -  FOURTH    CLASS I
 AD0692
 AD0692.The horizontal coordinates were established by GPS observations
 AD0692.and adjusted by the National Geodetic Survey in April 2001.
 AD0692
 AD0692.The orthometric height was determined by differential leveling
 AD0692.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
 AD0692.WARNING-Repeat measurements at this control monument indicate possible
 AD0692.vertical movement.
 AD0692
 AD0692.Photographs are available for this station.
 AD0692
 AD0692.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD0692
 AD0692.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD0692
 AD0692.The ellipsoidal height was determined by GPS observations
 AD0692.and is referenced to NAD 83.
 AD0692
 AD0692.The geoid height was determined by GEOID03.
 AD0692
 AD0692.The dynamic height is computed by dividing the NAVD 88
 AD0692.geopotential number by the normal gravity value computed on the
 AD0692.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD0692.degrees latitude (g = 980.6199 gals.).
 AD0692
 AD0692.The modeled gravity was interpolated from observed gravity values.
 AD0692
 AD0692;                    North         East     Units Scale Factor Converg.
 AD0692;SPC FL E      -   258,155.952   228,620.379   MT  0.99995129   +0 07 44.5
 AD0692;SPC FL E      -   846,966.65    750,065.36    sFT  0.99995129   +0 07 44.5
 AD0692;UTM  17       - 2,949,199.852   528,610.613   MT  0.99961011   +0 07 44.5
 AD0692
 AD0692!              -  Elev Factor  x  Scale Factor =   Combined Factor
 AD0692!SPC FL E      -   1.00000297  x   0.99995129  =   0.99995426
 AD0692!UTM  17       -   1.00000297  x   0.99961011  =   0.99961308
 AD0692
 AD0692|----------------------------------------------------------------------|
```

```
AD0692| PID    Reference Object                      Distance      Geod. Az  |
AD0692|                                                            dddmmss.s |
AD0692| AD8230 SOUTH BAY GRAV 684                     8.967 METERS 18253     |
AD0692|-----------------------------------------------------------------------|
AD0692
AD0692                          SUPERSEDED SURVEY CONTROL
AD0692
AD0692  NAVD 88 (06/15/91)    6.115  (m)           20.06   (f) UNKNOWN     1 2
AD0692  NGVD 29 (09/01/92)    6.491  (m)           21.30   (f) ADJUSTED    1 2
AD0692
AD0692.Superseded values are not recommended for survey control.
AD0692.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD0692.See file dsdata.txt to determine how the superseded data were derived.
AD0692
AD0692_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK2861149200(NAD 83)
AD0692_MARKER: DB = BENCH MARK DISK
AD0692_SETTING: 40 = SET IN A LARGE STRUCTURE WITH DEEP FOUNDATIONS
AD0692_SP_SET: LOCK STRUCTURE
AD0692_STAMPING: NO 1 1925
AD0692_MARK LOGO: CGS
AD0692_MAGNETIC: N = NO MAGNETIC MATERIAL
AD0692_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AD0692+STABILITY: POSITION/ELEVATION WELL
AD0692_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD0692+SATELLITE: SATELLITE OBSERVATIONS - August 26, 2004
AD0692
AD0692  HISTORY     - Date     Condition        Report By
AD0692  HISTORY     - 1925     MONUMENTED       CGS
AD0692  HISTORY     - 1952     GOOD             NGS
AD0692  HISTORY     - 1970     GOOD             USGS
AD0692  HISTORY     - 19920326 GOOD             NGS
AD0692  HISTORY     - 19990405 GOOD             FL-099
AD0692  HISTORY     - 20000228 GOOD             FLDEP
AD0692  HISTORY     - 20020212 GOOD             NGS
AD0692  HISTORY     - 20020517 GOOD             MAPTEC
AD0692  HISTORY     - 20040826 GOOD             JCLS
AD0692
AD0692                          STATION DESCRIPTION
AD0692
AD0692'DESCRIBED BY NATIONAL GEODETIC SURVEY 1952
AD0692'AT SOUTH BAY.
AD0692'AT SOUTH BAY, PALM BEACH COUNTY, 275 FEET SOUTH OF THE STATE
AD0692'HIGHWAY 25 DRAWBRIDGE OVER NORTH NEW RIVER CANAL, AT THE NORTHEAST
AD0692'CORNER OF THE WEST WALL OF THE CONCRETE LOCK STRUCTURE, 20.5
AD0692'FEET NORTH OF THE WEST HINGE PIN OF THE NORTH GATES, AND IN THE
AD0692'TOP OF THE CONCRETE WALL OF THE LOCK.  A STANDARD DISK, STAMPED
AD0692'NO 1 1925.
AD0692
AD0692                          STATION RECOVERY (1970)
AD0692
AD0692'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1970
AD0692'RECOVERED IN GOOD CONDITION.
AD0692
AD0692                          STATION RECOVERY (1992)
AD0692
AD0692'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992
AD0692'IN SOUTH BAY, AT THE INTERSECTION OF STATE HIGHWAY 80 AND SOUTHWEST
AD0692'1ST AVENUE, IN TOP OF AND 0.6 M (2.0 FT) SOUTH OF THE NORTH FACE OF A
AD0692'CONCRETE CANAL LOCK FOUNDATION (ABANDONED), 72.0 M (236.2 FT) SOUTH
AD0692'OF THE CENTERLINE OF THE EASTBOUND LANES OF THE HIGHWAY, 15.2 M (49.9
AD0692'FT) EAST OF THE CENTERLINE OF THE AVENUE, 1.1 M (3.6 FT) ABOVE THE
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AD0692'LEVEL OF THE AVENUE, AND 0.6 M (2.0 FT) WEST OF THE EAST FACE OF THE
AD0692'FOUNDATION.
AD0692
AD0692 STATION RECOVERY (1999)
AD0692
AD0692'RECOVERY NOTE BY PALM BEACH COUNTY FLORIDA 1999
AD0692'RECOVERED AS DESCRIBED.
AD0692
AD0692 STATION RECOVERY (2000)
AD0692
AD0692'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AD0692'THE MARK IS IN SOUTH BAY ABOUT 26.0 MI (41.8 KM) NORTHWEST OF
AD0692'ANDYTOWN, 3.0 MI (4.8 KM) SOUTHWEST OF BELLE GLADE, IN SECTION 14,
AD0692'TOWNSHIP 44 SOUTH, RANGE 36 EAST. TO REACH THE MARK FROM THE JUNCTION
AD0692'OF U.S. HIGHWAY 27 AND STATE ROAD 80 IN SOUTH BAY, GO EAST ON STATE
AD0692'ROAD 80 FOR 0.2 MI (0.3 KM) TO THE JUNCTION OF SOUTHWEST 1ST AVENUE
AD0692'AND THE WEST END OF A BRIDGE SPANNING THE NORTH NEW RIVER CANAL AND
AD0692'THE MARK ON THE RIGHT, SET IN THE TOP OF THE EAST FACE OF THE
AD0692'ABANDONED CONCRETE CANAL FOUNDATION, 3.9 FT (1.2 M) ABOVE THE LEVEL OF
AD0692'1ST AVENUE. LOCATED 238.0 FT (72.5 M) SOUTH OF THE CENTERLINE OF THE
AD0692'EASTBOUND LANES OF STATE ROAD 80, 49.9 FT (15.2 M) EAST OF CENTERLINE
AD0692'OF 1ST AVENUE, 2.0 FT (0.6 M) SOUTH OF THE NORTH FACE OF THE
AD0692'FOUNDATION AND 2.0 FT (0.6 M) WEST OF THE EAST FACE OF THE FOUNDATION.
AD0692
AD0692 STATION RECOVERY (2002)
AD0692
AD0692'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
AD0692'RECOVERED AS DESCRIBED WITH THE FOLLOWING ADDITION
AD0692'
AD0692'SOUTH BAY, AT THE INTERSECTION OF STATE HIGHWAY 80 AND SOUTHWEST 1ST
AD0692'AVENUE..
AD0692'
AD0692'
AD0692'
AD0692
AD0692 STATION RECOVERY (2002)
AD0692
AD0692'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD0692'STATION RECOVERY (2002)
AD0692'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD0692'RECOVERED AS DESCRIBED.
AD0692'
AD0692'
AD0692
AD0692 STATION RECOVERY (2004)
AD0692
AD0692'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2004 (FJO)
AD0692'RECOVERED IN GOOD CONDITION.
1 National Geodetic Survey, Retrieval Date = JULY 25, 2007

The NGS Data SheetSee file dsdata.txt for more information about the
datasheet.DATABASE = ,PROGRAM = datasheet, VERSION = 7.59
1 National Geodetic Survey, Retrieval Date = APRIL 8, 2008
AJ7235 **********
AJ7235 DESIGNATION - A 518 **(CONTROL POINT)**
AJ7235 PID - AJ7235
AJ7235 STATE/COUNTY- FL/HIGHLANDS
AJ7235 USGS QUAD - CHILDS (1972)

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AJ7235
AJ7235                          *CURRENT SURVEY CONTROL
AJ7235  ______________________________________________________________________
AJ7235* NAD 83(2007)-  27 12 26.16968(N)    081 19 44.24942(W)     ADJUSTED
AJ7235* NAVD 88     -        41.515  (meters)     136.20   (feet)  ADJUSTED
AJ7235  ______________________________________________________________________
AJ7235  EPOCH DATE  -        2002.00
AJ7235  X           -     855,786.518 (meters)                     COMP
AJ7235  Y           -  -5,611,556.908 (meters)                     COMP
AJ7235  Z           -   2,898,667.521 (meters)                     COMP
AJ7235  LAPLACE CORR-          -2.53  (seconds)                    DEFLEC99
AJ7235  ELLIP HEIGHT-          16.482 (meters)          (02/10/07) ADJUSTED
AJ7235  GEOID HEIGHT-         -25.04  (meters)                     GEOID03
AJ7235  DYNAMIC HT  -          41.452 (meters)     136.00  (feet)  COMP
AJ7235
AJ7235  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AJ7235  Type    PID    Designation                       North   East  Ellip
AJ7235  ----------------------------------------------------------------------
AJ7235  NETWORK AJ7235 A 518                               0.45   0.41   1.18
AJ7235  ----------------------------------------------------------------------
AJ7235  MODELED GRAV-     979,136.4   (mgal)                        NAVD 88
AJ7235
AJ7235  VERT ORDER  -  FIRST     CLASS II
AJ7235
AJ7235.The horizontal coordinates were established by GPS observations
AJ7235.and adjusted by the National Geodetic Survey in February 2007.
AJ7235
AJ7235.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AJ7235.See National Readjustment for more information.
AJ7235.The horizontal coordinates are valid at the epoch date displayed above.
AJ7235.The epoch date for horizontal control is a decimal equivalence
AJ7235.of Year/Month/Day.
AJ7235
AJ7235.The orthometric height was determined by differential leveling
AJ7235.and adjusted in February 2002.
AJ7235
AJ7235.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ7235
AJ7235.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ7235
AJ7235.The ellipsoidal height was determined by GPS observations
AJ7235.and is referenced to NAD 83.
AJ7235
AJ7235.The geoid height was determined by GEOID03.
AJ7235
AJ7235.The dynamic height is computed by dividing the NAVD 88
AJ7235.geopotential number by the normal gravity value computed on the
AJ7235.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ7235.degrees latitude (g = 980.6199 gals.).
AJ7235
AJ7235.The modeled gravity was interpolated from observed gravity values.
AJ7235
AJ7235;                    North         East     Units Scale Factor Converg.
AJ7235;SPC FL E     -   318,411.987   167,411.180   MT  0.99995428   -0 09 01.5
AJ7235;SPC FL E     - 1,044,656.66    549,248.18   sFT  0.99995428   -0 09 01.5
AJ7235;UTM  17      - 3,009,435.328   467,422.300   MT  0.99961310   -0 09 01.5
AJ7235
AJ7235!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ7235!SPC FL E     -   0.99999741  x   0.99995428  =   0.99995169
AJ7235!UTM  17      -   0.99999741  x   0.99961310  =   0.99961051
AJ7235
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AJ7235 SUPERSEDED SURVEY CONTROL
AJ7235
AJ7235 NAD 83(1999)- 27 12 26.16974(N) 081 19 44.24947(W) AD( ) A
AJ7235 ELLIP H (12/09/02) 16.477 (m) GP( ) 4 1
AJ7235 NAVD 88 (12/09/02) 41.52 (m) 136.2 (f) LEVELING 3
AJ7235
AJ7235.Superseded values are not recommended for survey control.
AJ7235.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ7235.See file dsdata.txt to determine how the superseded data were derived.
AJ7235
AJ7235_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML6742209435(NAD 83)
AJ7235_MARKER: F = FLANGE-ENCASED ROD
AJ7235_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ7235_STAMPING: A 518 2001 CERP
AJ7235_MARK LOGO: NONE
AJ7235_PROJECTION: RECESSED 3 CENTIMETERS
AJ7235_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ7235_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ7235_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ7235+SATELLITE: SATELLITE OBSERVATIONS - June 07, 2006
AJ7235_ROD/PIPE-DEPTH: 24.7 meters
AJ7235
AJ7235 HISTORY - Date Condition Report By
AJ7235 HISTORY - 200105 MONUMENTED FOST
AJ7235 HISTORY - 20020212 GOOD NGS
AJ7235 HISTORY - 20020413 GOOD MAPTEC
AJ7235 HISTORY - 20050523 GOOD FLDEP
AJ7235 HISTORY - 20060607 GOOD FLDEP
AJ7235
AJ7235 STATION DESCRIPTION
AJ7235
AJ7235'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)
AJ7235'THE MONUMENT IS LOCATED IN BAIRS DEN, FL., 18.25 MILES (29.37 KM)
AJ7235'NORTH OF PALMDALE, FL. AND 4.0 MILES
AJ7235'(6.44 KM) SOUTH OF LAKE PLACID, FL. IN SECTION 4, TOWNSHIP 38 SOUTH,
AJ7235'RANGE 30 EAST.
AJ7235'
AJ7235'OWNERSHIP IS THE FLORIDA DEPARTMENT OF TRANSPORTATION.
AJ7235'
AJ7235'TO REACH THE MONUMENT FROM THE INTERSECTION OF STATE ROAD 70 AND US
AJ7235'HIGHWAY 27, IN BAIRS DEN, GO SOUTH ON
AJ7235'US HIGHWAY 27 0.05 MILES (0.08 KM) AND MONUMENT IS ON THE WEST (RIGHT)
AJ7235'SIDE OF THE ROAD AND ON THE
AJ7235'EAST SIDE OF A FENCED IN WELL. THE MONUMENT IS 19.7 MILES (31.70 KM)
AJ7235'NORTH OF THE JUNCTION OF STATE
AJ7235'ROAD 29 AND US HIGHWAY 27.
AJ7235'
AJ7235'THE MONUMENT IS 61.5 FEET (18.75 M) WEST OF THE CENTERLINE OF THE
AJ7235'SOUTHBOUND LANE OF US HIGHWAY
AJ7235'27, 18.2 FEET (5.55 M) NORTHEAST OF THE NORTHEAST CORNER OF WELL
AJ7235'FENCE, 41.3 FEET (12.59 M)
AJ7235'SOUTHEAST OF A TELEPHONE JUNCTION BOX, 39.1 FEET (11.92 M) SOUTHWEST
AJ7235'OF THE THIRD STREET LIGHT
AJ7235'POLE SOUTH OF THE INTERSECTION OF STATE ROAD 70 AND US 29 AND 13 FEET
AJ7235'(3.96 M) EAST OF A CARSONITE
AJ7235'WITNESS POST. NOTE NOTE ACCESS TO THE DATUM POINT (THE TOP OF A
AJ7235'STAINLESS STEEL ROD) IS HAD
AJ7235'THROUGH A 5 INCH LOGO CAP. NOTE A MAGNET WAS PLACED INSIDE THE PVC
AJ7235'PIPE.
AJ7235
AJ7235 STATION RECOVERY (2002)

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 AJ7235
 AJ7235'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
 AJ7235'RECOVER AS DESCRIBED
 AJ7235'
 AJ7235'
 AJ7235'
 AJ7235'
 AJ7235
 AJ7235                          STATION RECOVERY (2002)
 AJ7235
 AJ7235'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AJ7235'RECOVERED AS DESCRIBED
 AJ7235'
 AJ7235
 AJ7235                          STATION RECOVERY (2005)
 AJ7235
 AJ7235'RECOVERY NOTE BY FL DEPT OF ENV PRO 2005 (BPJ)
 AJ7235'RECOVERED IN GOOD CONDITION WITH A NEW TO REACH AS FOLLOWS, TO REACH
 AJ7235'THE MARK FROM  THE INTERSECTION OF STATE ROAD 70 AND U.S. HIGHWAY 27
 AJ7235'ABOUT 7.0 MI SOUTH OF LAKE PLACID,  GO SOUTH ON U.S. HIGHWAY 27 FOR
 AJ7235'0.1 MI TO THE MARK ON THE RIGHT.
 AJ7235'
 AJ7235'NOTE THE MARK WAS NOT LEVELED TO.
 AJ7235
 AJ7235                          STATION RECOVERY (2006)
 AJ7235
 AJ7235'RECOVERY NOTE BY FL DEPT OF ENV PRO 2006 (BPJ)
 AJ7235'RECOVERED IN GOOD CONDITION WITH A NEW TO REACH AS FOLLOWS,
 AJ7235'
 AJ7235'TO REACH THE MARK FROM  THE INTERSECTION OF STATE ROAD 70 AND U.S.
 AJ7235'HIGHWAY 27 ABOUT 6.0 MI SOUTH OF LAKE PLACID,  GO SOUTH ON U.S.
 AJ7235'HIGHWAY 27 FOR 0.1 MI TO THE MARK ON THE RIGHT.

 *** retrieval complete.
 Elapsed Time = 00:00:00


AJ6189 ***********************************************************************
 AJ6189  DESIGNATION -  A 524      (CONTROL POINT)
 AJ6189  PID         -  AJ6189
 AJ6189  STATE/COUNTY-  FL/GLADES
 AJ6189  USGS QUAD   -  FISHEATING BAY (1971)
 AJ6189
 AJ6189                        *CURRENT SURVEY CONTROL
 AJ6189  ______________________________________________________________________
 AJ6189* NAD 83(1999)-  26 53 43.91515(N)    081 07 18.67723(W)     ADJUSTED
 AJ6189* NAVD 88     -        10.351  (meters)      33.96   (feet)  ADJUSTED
 AJ6189  ______________________________________________________________________
 AJ6189  X           -     878,484.845 (meters)                     COMP
 AJ6189  Y           -  -5,623,920.804 (meters)                     COMP
 AJ6189  Z           -   2,867,890.593 (meters)                     COMP
 AJ6189  LAPLACE CORR-          -1.87  (seconds)                    DEFLEC99
 AJ6189  ELLIP HEIGHT-         -14.361 (meters)          (12/12/02) GPS OBS
 AJ6189  GEOID HEIGHT-         -24.72  (meters)                     GEOID03
 AJ6189  DYNAMIC HT  -          10.335 (meters)      33.91  (feet)  COMP
 AJ6189  MODELED GRAV-     979,123.1   (mgal)                       NAVD 88
 AJ6189
 AJ6189  HORZ ORDER  -  FIRST
 AJ6189  VERT ORDER  -  FIRST     CLASS II
 AJ6189  ELLP ORDER  -  FOURTH    CLASS I
 AJ6189
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AJ6189.The horizontal coordinates were established by GPS observations
AJ6189.and adjusted by the National Geodetic Survey in December 2002.
AJ6189
AJ6189.The orthometric height was determined by differential leveling
AJ6189.and adjusted by the NATIONAL GEODETIC SURVEY in January 2002.
AJ6189
AJ6189.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ6189
AJ6189.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ6189
AJ6189.The ellipsoidal height was determined by GPS observations
AJ6189.and is referenced to NAD 83.
AJ6189
AJ6189.The geoid height was determined by GEOID03.
AJ6189
AJ6189.The dynamic height is computed by dividing the NAVD 88
AJ6189.geopotential number by the normal gravity value computed on the
AJ6189.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6189.degrees latitude (g = 980.6199 gals.).
AJ6189
AJ6189.The modeled gravity was interpolated from observed gravity values.
AJ6189
AJ6189;   North   East   Units Scale Factor Converg.
AJ6189;SPC FL E   -   283,835.218   187,894.867   MT 0.99994298   -0 03 18.4
AJ6189;SPC FL E   -   931,216.04   616,451.74   sFT 0.99994298   -0 03 18.4
AJ6189;UTM 17   - 2,974,870.356   487,898.997   MT 0.99960181   -0 03 18.4
AJ6189
AJ6189!   - Elev Factor x Scale Factor =   Combined Factor
AJ6189!SPC FL E   -   1.00000226 x   0.99994298 =   0.99994524
AJ6189!UTM 17   -   1.00000226 x   0.99960181 =   0.99960407
AJ6189
AJ6189   SUPERSEDED SURVEY CONTROL
AJ6189
AJ6189 NAVD 88 (12/12/02)   10.35   (m)   34.0   (f) LEVELING   3
AJ6189
AJ6189.Superseded values are not recommended for survey control.
AJ6189.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6189.See file dsdata.txt to determine how the superseded data were derived.
AJ6189
AJ6189_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK8789974870(NAD 83)
AJ6189_MARKER: DD = SURVEY DISK
AJ6189_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6189_STAMPING: A 524 2001 CERP
AJ6189_MARK LOGO: USE
AJ6189_PROJECTION: RECESSED 10 CENTIMETERS
AJ6189_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6189_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6189+STABILITY: SURFACE MOTION
AJ6189_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6189+SATELLITE: SATELLITE OBSERVATIONS - October 03, 2002
AJ6189
AJ6189 HISTORY   - Date   Condition   Report By
AJ6189 HISTORY   - 20010512 MONUMENTED   EMCINC
AJ6189 HISTORY   - 20021003 GOOD   MAPTEC
AJ6189
AJ6189   STATION DESCRIPTION
AJ6189
AJ6189'DESCRIBED BY EMC INCORPORATED 2001 (MKC)
AJ6189'THE STATION IS LOCATED APPROXIMATELY 8.9 KILOMETERS (5.5 MILES)
AJ6189'SOUTH OF LAKEPORT, FLORIDA ON HERBERT HOOVER LEVEE
AJ6189'APPROXIMATELY 7.2 KILOMETERS (4.5 MILES) NORTHWEST OF MOORE

AJ6189'HAVEN, FLORIDA. LOCATED ON THE FISHEATING BAY QUAD SECTION 21,
AJ6189'TOWNSHIP 41 SOUTH, RANGE 32 EAST.
AJ6189'
AJ6189'OWNERSHIP   SOUTH FLORIDA WATER MANAGEMENT DISTRICT
AJ6189'
AJ6189'TO REACH THE STATION FROM THE INTERSECTION OF COUNTY ROAD 74 AND
AJ6189'STATE ROAD 78 IN LAKEPORT, FLORIDA GO SOUTH ON STATE ROAD 78 FOR 5.64
AJ6189'KILOMETERS (3.5 MILES) TO THE TOP OF HERBERT HOOVER LEVEE, THENCE
AJ6189'CONTINUE SOUTH ON THE LEVEE 0.16 KILOMETERS (0.1 MILES) TO A GATE ON
AJ6189'THE LEVEE, THENCE CONTINUE SOUTH ON THE LEVEE 3.06 KILOMETERS (1.9
AJ6189'MILES) TO THE MARK ON LEFT, ON THE LAKE SIDE OF THE LEVEE.
AJ6189'
AJ6189'THE STATION IS 2.9 METERS (9.5 FEET) EAST OF THE CENTER OF THE LEVEE,
AJ6189'0.8 METERS (2.6 FEET) SOUTHWEST OF A CARSONITE WITNESS POST, AND
AJ6189'0.25 METERS (0.8 FEET) SOUTH OF A MAGNET BURIED 0.1 METERS (0.3 FEET)
AJ6189'BELOW GROUND.
AJ6189'
AJ6189'
AJ6189'
AJ6189
AJ6189   STATION RECOVERY (2002)
AJ6189
AJ6189'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (MKC)
AJ6189'THE STATION IS LOCATED APPROXIMATELY 8.9 KILOMETERS (5.5 MILES)
AJ6189'SOUTH OF LAKEPORT, FLORIDA ON HERBERT HOOVER LEVEE
AJ6189'APPROXIMATELY 7.2 KILOMETERS (4.5 MILES) NORTHWEST OF MOORE
AJ6189'HAVEN, FLORIDA. LOCATED ON THE FISHEATING BAY QUAD SECTION 21,
AJ6189'TOWNSHIP 41 SOUTH, RANGE 32 EAST.
AJ6189'
AJ6189'OWNERSHIP   SOUTH FLORIDA WATER MANAGEMENT DISTRICT
AJ6189'
AJ6189'TO REACH THE STATION FROM THE INTERSECTION OF COUNTY ROAD 74 AND
AJ6189'STATE ROAD 78 IN LAKEPORT, FLORIDA GO SOUTH ON STATE ROAD 78 FOR 5.64
AJ6189'KILOMETERS (3.5 MILES) TO THE TOP OF HERBERT HOOVER LEVEE, THENCE
AJ6189'CONTINUE SOUTH ON THE LEVEE 0.16 KILOMETERS (0.1 MILES) TO A GATE ON
AJ6189'THE LEVEE, THENCE CONTINUE SOUTH ON THE LEVEE 3.06 KILOMETERS (1.9
AJ6189'MILES) TO THE MARK ON LEFT, ON THE LAKE SIDE OF THE LEVEE.
AJ6189'
AJ6189'THE STATION IS 2.9 METERS (9.5 FEET) EAST OF THE CENTER OF THE LEVEE,
AJ6189'0.8 METERS (2.6 FEET) SOUTHWEST OF A CARSONITE WITNESS POST, AND
AJ6189'0.25 METERS (0.8 FEET) SOUTH OF A MAGNET BURIED 0.1 METERS (0.3 FEET)
AJ6189'BELOW GROUND.
AJ6189'
AJ6189'
AJ6189'
1   National Geodetic Survey,   Retrieval Date = JULY 25, 2007

AD7890 ***
AD7890 CBN   - This is a Cooperative Base Network Control Station.
AD7890 DESIGNATION - AIRPORT   **(CONTROL POINT)**
AD7890 PID   - AD7890
AD7890 STATE/COUNTY- FL/HENDRY
AD7890 USGS QUAD   - HOG CYPRESS (1970)
AD7890
AD7890   *CURRENT SURVEY CONTROL
AD7890 ____
AD7890* NAD 83(1999)- 26 44 15.66910(N)   081 03 17.87454(W)   ADJUSTED
AD7890* NAVD 88   -   5.590 (meters)   18.34   (feet) ADJUSTED
AD7890 ____
AD7890 X   -   886,276.019 (meters)   COMP
AD7890 Y   - -5,630,681.414 (meters)   COMP

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AD7890  Z           -   2,852,279.982 (meters)                     COMP
AD7890  LAPLACE CORR-          -1.37  (seconds)                    DEFLEC99
AD7890  ELLIP HEIGHT-         -19.032 (meters)          (05/31/01) GPS OBS
AD7890  GEOID HEIGHT-         -24.59  (meters)                     GEOID03
AD7890  DYNAMIC HT  -           5.581 (meters)      18.31  (feet)  COMP
AD7890  MODELED GRAV-     979,110.5   (mgal)                       NAVD 88
AD7890
AD7890  HORZ ORDER  -  B
AD7890  VERT ORDER  -  FIRST     CLASS II
AD7890  ELLP ORDER  -  FIFTH     CLASS I
AD7890
AD7890.This mark is at Clewiston (AIRGLADES) Airport (2IS)
AD7890
AD7890.The horizontal coordinates were established by GPS observations
AD7890.and adjusted by the National Geodetic Survey in May 2001.
AD7890
AD7890.The orthometric height was determined by differential leveling
AD7890.and adjusted by the NATIONAL GEODETIC SURVEY in June 2002.
AD7890.No vertical observational check was made to the station.
AD7890
AD7890.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD7890
AD7890.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7890
AD7890.The ellipsoidal height was determined by GPS observations
AD7890.and is referenced to NAD 83.
AD7890
AD7890.The geoid height was determined by GEOID03.
AD7890
AD7890.The dynamic height is computed by dividing the NAVD 88
AD7890.geopotential number by the normal gravity value computed on the
AD7890.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7890.degrees latitude (g = 980.6199 gals.).
AD7890
AD7890.The modeled gravity was interpolated from observed gravity values.
AD7890
AD7890;                    North         East     Units Scale Factor Converg.
AD7890;SPC FL E     -   266,342.151   194,532.160   MT  0.99994155   -0 01 29.0
AD7890;SPC FL E     -   873,824.21    638,227.59   sFT  0.99994155   -0 01 29.0
AD7890;UTM  17      - 2,957,383.258   494,534.025   MT  0.99960037   -0 01 29.0
AD7890
AD7890!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD7890!SPC FL E     -   1.00000299  x   0.99994155  =   0.99994454
AD7890!UTM  17      -   1.00000299  x   0.99960037  =   0.99960336
AD7890
AD7890:                Primary Azimuth Mark                    Grid Az
AD7890:SPC FL E     -  AIRPORT AZ MK                          134 39 31.6
AD7890:UTM  17      -  AIRPORT AZ MK                          134 39 31.6
AD7890
AD7890|---------------------------------------------------------------------|
AD7890| PID    Reference Object                    Distance      Geod. Az   |
AD7890|                                                          dddmmss.s |
AD7890| AD7909 AIRPORT AZ MK                     APPROX. 0.9 KM 1343802.6 |
AD7890|---------------------------------------------------------------------|
AD7890
AD7890                          SUPERSEDED SURVEY CONTROL
AD7890
AD7890  NAD 83(1990)-  26 44 15.66768(N)    081 03 17.87385(W) AD(       ) B
AD7890  ELLIP H (09/13/90)  -19.053  (m)                        GP(       ) 4 1
AD7890  NGVD 29 (09/13/90)    5.9    (m)          19.     (f) GPS OBS
AD7890
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AD7890.Superseded values are not recommended for survey control.
AD7890.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7890.See file dsdata.txt to determine how the superseded data were derived.
AD7890
AD7890_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK9453457383(NAD 83)
AD7890_MARKER: F = FLANGE-ENCASED ROD
AD7890_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AD7890_SP_SET: STAINLESS STEEL ROD IN SLEEVE
AD7890_STAMPING: AIRPORT 1989
AD7890_MARK LOGO: NGS
AD7890_PROJECTION: RECESSED 8 CENTIMETERS
AD7890_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7890_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD7890_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7890+SATELLITE: SATELLITE OBSERVATIONS - May 30, 2003
AD7890_ROD/PIPE-DEPTH: 11.7 meters
AD7890_SLEEVE-DEPTH : 0.91 meters
AD7890
AD7890 HISTORY   - Date   Condition   Report By
AD7890 HISTORY   - 1989   MONUMENTED   NGS
AD7890 HISTORY   - 19980715 GOOD   GCYI
AD7890 HISTORY   - 20020221 GOOD   FLDEP
AD7890 HISTORY   - 20030530 GOOD   DENI
AD7890
AD7890   STATION DESCRIPTION
AD7890
AD7890'DESCRIBED BY NATIONAL GEODETIC SURVEY 1989
AD7890'THE STATION IS LOCATED ABOUT 11.3 KM (7.00 MI) WEST-SOUTHWEST OF
AD7890'CLEWISTON, ABOUT 2 KM (1.25 MI) SOUTH OF U.S. HIGHWAY 27, AT THE
AD7890'NORTHWEST END AND AT A NORTHWEST-SOUTHEAST FENCELINE AT RUNWAY 13-31
AD7890'AT THE CLEWISTON/AIRGLADES AIRPORT. OWNERSHIP--HENDRY COUNTY, MANAGER
AD7890'IS BILL JONES OR KEN HUNTER, PHONE IS 813-983-5206, 983-6151.
AD7890'NOTE--PERMISSION MUST BE OBTAINED BEFORE ENTERING AIRPORT.
AD7890'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 27 AND S.
AD7890'BERNARD RD., LOCATED AT THE WEST EDGE OF CLEWISTON, AND ABOUT 0.16 KM
AD7890'(0.10 MI) WEST OF A MCDONALDS RESTAURANT, GO WEST ALONG U.S.HIGHWAY 27
AD7890'FOR 1.1 KM (0.70 MI) TO A RAILROAD CROSSING, CONTINUE WEST ALONG
AD7890'HIGHWAY FOR 8.5 KM (5.30 MI) TO AN ASPHALT ROAD ON THE LEFT AND AN
AD7890'AIRPORT SIGN, THEN GO LEFT, SOUTH, ALONG THE ASPHALT ROAD FOR 2 KM
AD7890'(1.25 MI) TO AN ELECTRIC ENTRANCE GATE AT THE AIRPORT, THEN PASS THRU
AD7890'GATE AND GO SOUTHWEST FOR ABOUT 600.0 M (1968.5 FT) TO A METAL HANGAR
AD7890'AND MANAGERS OFFICE STRAIGHT AHEAD. FROM THE MANAGERS OFFICE GO
AD7890'WEST AND NORTH FOLLOWING PAVED TAXIWAY FOR ABOUT 0.4 KM (0.25 MI) TO
AD7890'THE NORTHWEST END OF RUNWAY 13-31 AND THE STATION NEAR A FENCELINE AND
AD7890'ABOUT 60 M (196.8 FT) SOUTHWEST OF THE NORTHWEST CORNER OF THE RUNWAY.
AD7890'THE STATION IS RECESSED 8 CM BELOW GROUND. LOCATED 62.2 M (204.1 FT)
AD7890'SOUTHWEST OF THE SOUTHWEST EDGE OF RUNWAY, 59.7 M (195.9 FT) SOUTHWEST
AD7890'OF THE SOUTHWESTMOST 1 OF 6 END RUNWAY LIGHTS AND 0.9 M (3.0 FT) NORTH
AD7890'FROM A FENCE LINE.
AD7890'DESCRIBED BY G.F. SMITH.
AD7890
AD7890   STATION RECOVERY (1998)
AD7890
AD7890'RECOVERY NOTE BY G.C.Y., INCORPORATED 1998 (GCY)
AD7890'RECOVERED AS DESCRIBED.
AD7890
AD7890   STATION RECOVERY (2002)
AD7890
AD7890'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)
AD7890'THE STATION IS ABOUT 8.5 MI SOUTHWEST OF MOORE HAVEN, 7.5 MI WEST OF
AD7890'CLEWISTON,

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 AD7890'OWNERSHIP---HENDRY COUNTY, THE PHONE NUMBER IS (863) 983-6151,
 AD7890'PERMISSION MUST BE
 AD7890'OBTAINED BEFORE ENTERING AIRPORT.
 AD7890'
 AD7890'TO REACH THE STATION FROM THE JUNCTION OF COUNTY ROAD 832 (WC OWEN)
 AD7890'AND U.S. HIGHWAY
 AD7890'27 (STATE ROAD 80, WEST SUGARLAND HIGHWAY) IN CLEWISTON, GO WEST ON
 AD7890'U.S. HIGHWAY 27
 AD7890'(STATE ROAD 80, WEST SUGARLAND HIGHWAY) FOR 6.95 MI TO THE JUNCTION OF
 AD7890'AIRGLADES
 AD7890'BOULEVARD ON THE LEFT, TURN LEFT ON AIRGLADES BOULEVARD AND GO WEST
 AD7890'FOR 1.25 MI TO AN
 AD7890'ELECTRIC ENTRANCE GATE AT THE AIRGLADES AIRPORT, PASSING THROUGH THE
 AD7890'GATE GO
 AD7890'SOUTHWEST FOR 0.05 MI PASSING A METAL HANGAR ON THE RIGHT FOR THE
 AD7890'AIRGLADES AIRPORT
 AD7890'AND THE MANAGERS OFFICE ON THE LEFT AND THE NORTH END OF A TAXIWAY AND
 AD7890'PAVED APRON,
 AD7890'CONTINUE SOUTH ON THE TAXIWAY FOR 0.5 MI TO THE INTERSECTION OF
 AD7890'TAXIWAY A2, TURN
 AD7890'RIGHT AND GO NORTHWEST ON TAXIWAY A2 FOR 0.25 MI TO THE T-JUNCTION OF
 AD7890'TAXIWAY A1,
 AD7890'TURN LEFT AND GO SOUTHWEST ON A TAXIWAY (A 1) FOR 0.05 MI TO THE
 AD7890'T-JUNCTION OF RUNWAY
 AD7890'13-31, CONTINUE SOUTHWEST ACROSS RUNWAY 13-31 FOR 0.05 MI TO THE
 AD7890'STATION, A STAINLESS
 AD7890'STEEL ROD DRIVEN INTO THE GROUND WITH A NGS LOGO CAP RECESSED 0.3 FT
 AD7890'BELOW THE
 AD7890'LEVEL OF THE GROUND AND BELOW THE LEVEL OF THE RUNWAY, THE DATUM POINT
 AD7890'IS RECESSED
 AD7890'0.2 FT BELOW THE LEVEL OF THE NGS LOGO CAP.
 AD7890'
 AD7890'LOCATED 209.0 FT SOUTHWEST OF THE SOUTHWEST EDGE OF THE RUNWAY, 162.0
 AD7890'FT SOUTHEAST OF
 AD7890'A 24-INCH PALM TREE, 30.5 FT NORTHWEST OF THE EXTENDED CENTERLINE OF
 AD7890'TAXIWAY A1 ON
 AD7890'THE NORTHEAST SIDE OF RUNWAY 13-31 AND 4.5 FT NORTHEAST OF A CARSONITE
 AD7890'WITNESS POST.
 AD7890'
 AD7890'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.
 AD7890'
 AD7890'NOTE A PIECE OF REBAR WAS PLACE INSIDE OF THE NGS LOGO CAP.
 AD7890'
 AD7890'
 AD7890
 AD7890                          STATION RECOVERY (2003)
 AD7890
 AD7890'RECOVERY NOTE BY DENI ASSOCIATES INCORPORATED 2003 (BRH)
 AD7890'RECOVERED AS DESCRIBED IN 2002.
AJ5672 ************************************************************************
 AJ5672  DESIGNATION -  B 529         (CONTROL POINT)
 AJ5672  PID         -  AJ5672
 AJ5672  STATE/COUNTY-  FL/HIGHLANDS
 AJ5672  USGS QUAD   -  BRIGHTON NW (1983)
 AJ5672
 AJ5672                         *CURRENT SURVEY CONTROL
 AJ5672  ______________________________________________________________________
 AJ5672* NAD 83(1999)-  27 12 34.07301(N)    081 11 09.07968(W)     ADJUSTED
 AJ5672* NAVD 88     -         9.691  (meters)      31.79   (feet)  ADJUSTED
 AJ5672  ______________________________________________________________________
 AJ5672  X           -     869,777.894 (meters)                     COMP
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AJ5672  Y           -  -5,609,263.716 (meters)                     COMP
AJ5672  Z           -   2,898,869.114 (meters)                     COMP
AJ5672  LAPLACE CORR-          -3.67  (seconds)                    DEFLEC99
AJ5672  ELLIP HEIGHT-        -15.782 (meters)          (12/12/02) GPS OBS
AJ5672  GEOID HEIGHT-        -25.46  (meters)                     GEOID03
AJ5672  DYNAMIC HT  -          9.676 (meters)      31.75  (feet)  COMP
AJ5672  MODELED GRAV-     979,123.0   (mgal)                       NAVD 88
AJ5672
AJ5672  HORZ ORDER  -  FIRST
AJ5672  VERT ORDER  -  FIRST     CLASS II
AJ5672  ELLP ORDER  -  SECOND    CLASS II
AJ5672
AJ5672.The horizontal coordinates were established by GPS observations
AJ5672.and adjusted by the National Geodetic Survey in December 2002.
AJ5672
AJ5672.The orthometric height was determined by differential leveling
AJ5672.and adjusted by the NATIONAL GEODETIC SURVEY in November 2001.
AJ5672
AJ5672.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ5672
AJ5672.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ5672
AJ5672.The ellipsoidal height was determined by GPS observations
AJ5672.and is referenced to NAD 83.
AJ5672
AJ5672.The geoid height was determined by GEOID03.
AJ5672
AJ5672.The dynamic height is computed by dividing the NAVD 88
AJ5672.geopotential number by the normal gravity value computed on the
AJ5672.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ5672.degrees latitude (g = 980.6199 gals.).
AJ5672
AJ5672.The modeled gravity was interpolated from observed gravity values.
AJ5672
AJ5672;                    North         East     Units Scale Factor Converg.
AJ5672;SPC FL E     -   318,626.115   181,588.303   MT  0.99994536   -0 05 05.9
AJ5672;SPC FL E     - 1,045,359.18    595,760.96   sFT  0.99994536   -0 05 05.9
AJ5672;UTM  17      - 3,009,649.383   481,594.585   MT  0.99960418   -0 05 05.9
AJ5672
AJ5672!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ5672!SPC FL E     -   1.00000248  x   0.99994536  =   0.99994784
AJ5672!UTM  17      -   1.00000248  x   0.99960418  =   0.99960666
AJ5672
AJ5672                          SUPERSEDED SURVEY CONTROL
AJ5672
AJ5672  NAVD 88 (12/12/02)    9.69   (m)           31.8    (f) LEVELING    3
AJ5672
AJ5672.Superseded values are not recommended for survey control.
AJ5672.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ5672.See file dsdata.txt to determine how the superseded data were derived.
AJ5672
AJ5672_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML8159509649(NAD 83)
AJ5672_MARKER: DD = SURVEY DISK
AJ5672_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ5672_STAMPING: B 529 2001 CERP
AJ5672_MARK LOGO: USE
AJ5672_PROJECTION: RECESSED 10 CENTIMETERS
AJ5672_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ5672_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ5672+STABILITY: SURFACE MOTION
AJ5672_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
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 AJ5672+SATELLITE: SATELLITE OBSERVATIONS - April 13, 2002
 AJ5672
 AJ5672  HISTORY     - Date     Condition        Report By
 AJ5672  HISTORY     - 2001     MONUMENTED       EMCINC
 AJ5672  HISTORY     - 20020413 GOOD             MAPTEC
 AJ5672
 AJ5672                          STATION DESCRIPTION
 AJ5672
 AJ5672'DESCRIBED BY EMC INCORPORATED 2001 (CHP)
 AJ5672'THE STATION IS LOCATED APPROXIMATELY 36.6 KILOMETERS (22.7 MILES)
 AJ5672'WEST OF OKEECHOBEE, FLORIDA 9.6 KILOMETERS (6.0 MILES) WEST OF
 AJ5672'BRIGHTON, FLORIDA ON THE NORTH RIGHT OF WAY OF STATE ROAD 70 AT A
 AJ5672'PRIVATE ROAD LEADING NORTH TO WOERNER TURF SOD FARM.  THE MARK IS
 AJ5672'LOCATED ON THE BRIGHTON NORTHWEST QUAD SECTION, TOWNSHIP 38 SOUTH,
 AJ5672'RANGE 31 EAST.
 AJ5672'
 AJ5672'OWNERSHIP   FLDT.
 AJ5672'
 AJ5672'TO REACH THE STATION FROM THE INTERSECTION OF COUNTY ROAD 721
 AJ5672'AND STATE ROAD 70 IN BRIGHTON, FLORIDA GO WEST, 9.67 KILOMETERS (6.0
 AJ5672'MILES) TO THE MARK ON RIGHT NEAR THE WEST EDGE OF A PRIVATE ROAD
 AJ5672'LEADING NORTH.
 AJ5672'
 AJ5672'THE STATION IS LOCATED 24.0 METERS (78.7 FEET) NORTH OF THE CENTER
 AJ5672'OF STATE ROAD 70 (TWO LANE ROAD), 12.5 METERS (41.0 FEET) WEST OF THE
 AJ5672'CENTER OF A PRIVATE ROAD LEADING NORTH TO WOERNER TURF SOD
 AJ5672'FARM, 5.8 METERS (19.0 FEET) EAST OF A FENCE CORNER, 1.4 METERS (4.6
 AJ5672'FEET) SOUTH OF A CARSONITE WITNESS POST AND 0.25 METERS (0.8 FEET)
 AJ5672'SOUTH OF A MAGNET BURIED 0.1 METERS (0.3 FEET).
 AJ5672'
 AJ5672'
 AJ5672'
 AJ5672'
 AJ5672'
 AJ5672
 AJ5672                          STATION RECOVERY (2002)
 AJ5672
 AJ5672'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AJ5672'RECOVERED AS DESCRIBED
 AJ5672'
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AJ8881 ***********************************************************************
 AJ8881  DESIGNATION -  B 548                (CONTROL POINT)
 AJ8881  PID         -  AJ8881
 AJ8881  STATE/COUNTY-  FL/PALM BEACH
 AJ8881  USGS QUAD   -  RIVIERA BEACH (1983)
 AJ8881
 AJ8881                        *CURRENT SURVEY CONTROL
 AJ8881  ______________________________________________________________________
 AJ8881* NAD 83(2007)-  26 47 17.65025(N)    080 07 10.86699(W)     ADJUSTED
 AJ8881* NAVD 88     -         5.510  (meters)      18.08   (feet)  ADJUSTED
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AJ8881  ____________________________________________________________________
AJ8881  EPOCH DATE  -        2002.00
AJ8881  X           -     977,634.412 (meters)                      COMP
AJ8881  Y           -  -5,612,978.110 (meters)                      COMP
AJ8881  Z           -   2,857,280.039 (meters)                      COMP
AJ8881  LAPLACE CORR-          -3.60  (seconds)                     DEFLEC99
AJ8881  ELLIP HEIGHT-         -21.033 (meters)          (02/10/07) ADJUSTED
AJ8881  GEOID HEIGHT-         -26.54  (meters)                      GEOID03
AJ8881  DYNAMIC HT  -           5.502 (meters)      18.05  (feet)  COMP
AJ8881
AJ8881  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AJ8881  Type    PID    Designation                       North   East  Ellip
AJ8881  ----------------------------------------------------------------------
AJ8881  NETWORK AJ8881 B 548                               1.94   1.88   4.02
AJ8881  ----------------------------------------------------------------------
AJ8881  MODELED GRAV-     979,115.1   (mgal)                       NAVD 88
AJ8881
AJ8881  VERT ORDER  -  FIRST     CLASS II
AJ8881
AJ8881.The horizontal coordinates were established by GPS observations
AJ8881.and adjusted by the National Geodetic Survey in February 2007.
AJ8881
AJ8881.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AJ8881.See National Readjustment for more information.
AJ8881.The horizontal coordinates are valid at the epoch date displayed above.
AJ8881.The epoch date for horizontal control is a decimal equivalence
AJ8881.of Year/Month/Day.
AJ8881
AJ8881.The orthometric height was determined by differential leveling
AJ8881.and adjusted in May 2002.
AJ8881
AJ8881.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ8881
AJ8881.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ8881
AJ8881.The ellipsoidal height was determined by GPS observations
AJ8881.and is referenced to NAD 83.
AJ8881
AJ8881.The geoid height was determined by GEOID03.
AJ8881
AJ8881.The dynamic height is computed by dividing the NAVD 88
AJ8881.geopotential number by the normal gravity value computed on the
AJ8881.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ8881.degrees latitude (g = 980.6199 gals.).
AJ8881
AJ8881.The modeled gravity was interpolated from observed gravity values.
AJ8881
AJ8881;                    North         East     Units Scale Factor Converg.
AJ8881;SPC FL E     -   272,244.699   287,535.525   MT  1.00003574   +0 23 48.4
AJ8881;SPC FL E     -   893,189.48    943,356.13    sFT  1.00003574   +0 23 48.4
AJ8881;UTM  17      - 2,963,283.792   587,505.658   MT  0.99969453   +0 23 48.4
AJ8881
AJ8881!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ8881!SPC FL E     -   1.00000330  x   1.00003574  =   1.00003904
AJ8881!UTM  17      -   1.00000330  x   0.99969453  =   0.99969783
AJ8881
AJ8881                          SUPERSEDED SURVEY CONTROL
AJ8881
AJ8881  NAD 83(1999)-  26 47 17.65040(N)    080 07 10.86709(W) AD(       ) 1
AJ8881  ELLIP H (12/12/02)  -21.036  (m)                       GP(       ) 3 1
AJ8881  NAVD 88 (12/12/02)    5.51   (m)           18.1    (f) LEVELING    3
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AJ8881
AJ8881.Superseded values are not recommended for survey control.
AJ8881.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ8881.See file dsdata.txt to determine how the superseded data were derived.
AJ8881
AJ8881_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK8750663284(NAD 83)
AJ8881_MARKER: F = FLANGE-ENCASED ROD
AJ8881_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ8881_STAMPING: B 548 CERP 2001
AJ8881_MARK LOGO: NONE
AJ8881_PROJECTION: RECESSED 15 CENTIMETERS
AJ8881_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ8881_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ8881_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8881+SATELLITE: SATELLITE OBSERVATIONS - April 19, 2002
AJ8881_ROD/PIPE-DEPTH: 21.9 meters
AJ8881
AJ8881 HISTORY   - Date   Condition   Report By
AJ8881 HISTORY   - 20011101 MONUMENTED   MOREKL
AJ8881 HISTORY   - 20020419 GOOD   MAPTEC
AJ8881
AJ8881   STATION DESCRIPTION
AJ8881
AJ8881'DESCRIBED BY MORGAN AND EKLUND INC 2001 (MAB)
AJ8881'THE STATION IS LOCATED ABOUT 56.6 KM (35.1 MILES) EAST NORTHEAST OF
AJ8881'BELLE GLADE, ABOUT 17.2
AJ8881'KM (10.7 MILES) SOUTH SOUTHWEST OF JUPITER, ABOUT 44.5 KM (27.7 MILES)
AJ8881'SOUTHEAST OF
AJ8881'INDIANTOWN IN SECTION 26, TOWNSHIP 42 SOUTH, RANGE 42 EAST.
AJ8881'
AJ8881'OWNERSHIP PALM BEACH COUNTY (STATE ROAD 710 RIGHT OF WAY).
AJ8881'
AJ8881'TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE 95 AND COUNTY
AJ8881'ROAD 809A
AJ8881'(NORTHLAKE BLVD.), GO WEST ON COUNTY ROAD 809A FOR 5.5 KM (3.4 MILES)
AJ8881'TO THE INTERSECTION
AJ8881'OF COUNTY ROAD 809A AND STATE ROAD 710, TURN LEFT AND GO SOUTHEAST ON
AJ8881'STATE ROAD 710
AJ8881'FOR 4.2 KM (2.6 MILES) TO THE MARK ON THE LEFT.
AJ8881'
AJ8881'THE MARK IS 21.2 METERS (69.5 FEET) SOUTHWEST OF A CONCRETE LIGHT
AJ8881'POLE, 11.5 METERS (37.7
AJ8881'FEET) SOUTH OF A CARSONITE WITNESS POST, 5.1 METERS (16.7 FEET)
AJ8881'SOUTHWEST OF A METAL
AJ8881'ROADWAY INFORMATION SIGN, 5.7 METERS (18.6 FEET) NORTHEAST OF A PK
AJ8881'NAIL AND DISK LB4298
AJ8881'SET IN THE NORTH EDGE OF PAVEMENT OF STATE ROAD 710, 4.7 METERS (15.5
AJ8881'FEET) NORTHWEST OF
AJ8881'A PK NAIL AND DISK LB4298 SET IN THE NORTH EDGE OF PAVEMENT OF STATE
AJ8881'ROAD 710 AND 2.7
AJ8881'METERS (8.8 FEET) NORTH OF THE NORTH EDGE OF PAVEMENT OF STATE ROAD
AJ8881'710. ACCESS TO THE
AJ8881'DATUM POINT (TOP OF A STAINLESS STEEL ROD) IS HAD THROUGH A 5 INCH
AJ8881'LOGO CAP.
AJ8881'
AJ8881'NOTE A MAGNET WAS PLACED INSIDE THE PVC ENCASEMENT.
AJ8881'
AJ8881'
AJ8881
AJ8881   STATION RECOVERY (2002)
AJ8881

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 AJ8881'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AJ8881'THE STATION IS LOCATED ABOUT 56.6 KM (35.1 MILES) EAST NORTHEAST OF
 AJ8881'BELLE GLADE, ABOUT 17.2
 AJ8881'KM (10.7 MILES) SOUTH SOUTHWEST OF JUPITER, ABOUT 44.5 KM (27.7 MILES)
 AJ8881'SOUTHEAST OF
 AJ8881'INDIANTOWN IN SECTION 26, TOWNSHIP 42 SOUTH, RANGE 42 EAST.
 AJ8881'
 AJ8881'OWNERSHIP  PALM BEACH COUNTY (STATE ROAD 710 RIGHT OF WAY).
 AJ8881'
 AJ8881'TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE 95 AND COUNTY
 AJ8881'ROAD 809A
 AJ8881'(NORTHLAKE BLVD.), GO WEST ON COUNTY ROAD 809A FOR 5.5 KM (3.4 MILES)
 AJ8881'TO THE INTERSECTION
 AJ8881'OF COUNTY ROAD 809A AND STATE ROAD 710, TURN LEFT AND GO SOUTHEAST ON
 AJ8881'STATE ROAD 710
 AJ8881'FOR 4.2 KM (2.6 MILES) TO THE MARK ON THE LEFT.
 AJ8881'
 AJ8881'THE MARK IS 21.2 METERS (69.5 FEET) SOUTHWEST OF A CONCRETE LIGHT
 AJ8881'POLE, 11.5 METERS (37.7
 AJ8881'FEET) SOUTH OF A CARSONITE WITNESS POST, 5.1 METERS (16.7 FEET)
 AJ8881'SOUTHWEST OF A METAL
 AJ8881'ROADWAY INFORMATION SIGN, 5.7 METERS (18.6 FEET) NORTHEAST OF A PK
 AJ8881'NAIL AND DISK LB4298
 AJ8881'SET IN THE NORTH EDGE OF PAVEMENT OF STATE ROAD 710, 4.7 METERS (15.5
 AJ8881'FEET) NORTHWEST OF
 AJ8881'A PK NAIL AND DISK LB4298 SET IN THE NORTH EDGE OF PAVEMENT OF STATE
 AJ8881'ROAD 710 AND 2.7
 AJ8881'METERS (8.8 FEET) NORTH OF THE NORTH EDGE OF PAVEMENT OF STATE ROAD
 AJ8881'710. ACCESS TO THE
 AJ8881'DATUM POINT (TOP OF A STAINLESS STEEL ROD) IS HAD THROUGH A 5 INCH
 AJ8881'LOGO CAP.
 AJ8881'
 AJ8881'NOTE  A MAGNET WAS PLACED INSIDE THE PVC ENCASEMENT.
 AJ8881'
 AJ8881'STATION RECOVERY (2002)
 AJ8881'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP). RECOVERED AS
 AJ8881'DESCRIBED.
 AJ8881'
 AJ8881'

 *** retrieval complete.
 Elapsed Time = 00:00:00


AD7409 ************************************************************************
 AD7409  DESIGNATION -  BRIDGE 2       (CONTROL POINT)
 AD7409  PID         -  AD7409
 AD7409  STATE/COUNTY-  FL/PALM BEACH
 AD7409  USGS QUAD   -  LAKE HARBOR SE (1970)
 AD7409
 AD7409                        *CURRENT SURVEY CONTROL
 AD7409  ______________________________________________________________________
 AD7409* NAD 83(1990)-  26 33 57.48801(N)    080 50 31.94665(W)     ADJUSTED
 AD7409* NAVD 88     -         5.841  (meters)      19.16   (feet)  ADJUSTED
 AD7409  ______________________________________________________________________
 AD7409  LAPLACE CORR-          -0.96  (seconds)                     DEFLEC99
 AD7409  GEOID HEIGHT-         -24.82  (meters)                      GEOID03
 AD7409  DYNAMIC HT  -           5.832 (meters)      19.13  (feet)  COMP
 AD7409  MODELED GRAV-     979,087.1   (mgal)                        NAVD 88
 AD7409
 AD7409  HORZ ORDER  -  FIRST
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AD7409 VERT ORDER - SECOND   CLASS I
AD7409
AD7409.The horizontal coordinates were established by classical geodetic methods
AD7409.and adjusted by the National Geodetic Survey in May 1991.
AD7409
AD7409.The orthometric height was determined by differential leveling
AD7409.and adjusted by the NATIONAL GEODETIC SURVEY in May 2003.
AD7409.No vertical observational check was made to the station.
AD7409.WARNING-Repeat measurements at this control monument indicate possible
AD7409.vertical movement.
AD7409
AD7409.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7409
AD7409.The geoid height was determined by GEOID03.
AD7409
AD7409.The dynamic height is computed by dividing the NAVD 88
AD7409.geopotential number by the normal gravity value computed on the
AD7409.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7409.degrees latitude (g = 980.6199 gals.).
AD7409
AD7409.The modeled gravity was interpolated from observed gravity values.
AD7409
AD7409;   North   East   Units Scale Factor Converg.
AD7409;SPC FL E   -   247,325.863   215,720.454   MT 0.99994423   +0 04 14.0
AD7409;SPC FL E   -   811,434.94   707,742.86   sFT 0.99994423   +0 04 14.0
AD7409;UTM 17   - 2,938,373.458   515,715.090   MT 0.99960305   +0 04 14.0
AD7409
AD7409!   - Elev Factor x Scale Factor =   Combined Factor
AD7409!SPC FL E   -   1.00000298 x   0.99994423 =   0.99994721
AD7409!UTM 17   -   1.00000298 x   0.99960305 =   0.99960603
AD7409
AD7409:   Primary Azimuth Mark   Grid Az
AD7409:SPC FL E   - OKEELANTA SUGAR REFINING CO TK   081 47 16.0
AD7409:UTM 17   - OKEELANTA SUGAR REFINING CO TK   081 47 16.0
AD7409
AD7409|--|
AD7409| PID   Reference Object   Distance   Geod. Az |
AD7409| dddmmss.s |
AD7409| AD7346 OKEELANTA SUGAR REFINING CO TK   APPROX. 9.3 KM 0815130.0 |
AD7409| AD8164 BRIDGE 2 RM 3   22.013 METERS 11341 |
AD7409| CW9345 BRIDGE 2 RM 4   14.244 METERS 25852 |
AD7409| AD7413 CLEWISTON ATT MICROWAVE   APPROX.10.3 KM 3114850.3 |
AD7409| CW9344 BRIDGE 2 AZ MK   3485427.0 |
AD7409|--|
AD7409
AD7409   SUPERSEDED SURVEY CONTROL
AD7409
AD7409 NAD 83(1986)- 26 33 57.48982(N)   080 50 31.95552(W) AD(   ) 1
AD7409 NAD 27   - 26 33 56.23244(N)   080 50 32.72985(W) AD(   ) 1
AD7409 NAVD 88 (10/26/99)   5.877 (m)   19.28   (f) UNKNOWN   1 2
AD7409 NAVD 88 (09/04/92)   5.882 (m)   19.30   (f) UNKNOWN   1 2
AD7409 NGVD 29 (09/01/92)   6.312 (m)   20.71   (f) ADJUSTED   1 2
AD7409
AD7409.Superseded values are not recommended for survey control.
AD7409.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7409.See file dsdata.txt to determine how the superseded data were derived.
AD7409
AD7409_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK1571538373(NAD 83)
AD7409_MARKER: DS = TRIANGULATION STATION DISK
AD7409_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AD7409_SP_SET: CONCRETE POST

AD7409_STAMPING: BRIDGE 2 1970
AD7409_MARK LOGO: NGS
AD7409_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7409_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD7409+STABILITY: SURFACE MOTION
AD7409_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7409+SATELLITE: SATELLITE OBSERVATIONS - November 11, 2002
AD7409

AD7409	HISTORY	- Date	Condition	Report By
AD7409	HISTORY	- 1970	MONUMENTED	NGS
AD7409	HISTORY	- 1970	GOOD	NGS
AD7409	HISTORY	- 1973	GOOD	LOCSUR
AD7409	HISTORY	- 19920317	GOOD	NGS
AD7409	HISTORY	- 20000301	GOOD	FLDEP
AD7409	HISTORY	- 20021111	GOOD	NGS

AD7409
AD7409 STATION DESCRIPTION
AD7409
AD7409'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970 (NCA)
AD7409'STATION IS ABOUT 14 MILES SOUTHWEST OF BELLE GLADE, 14 MILES
AD7409'SOUTHEAST OF CLEWISTON, 9 MILES SOUTH OF LAKE HARBOR, AT THE
AD7409'JUNCTION OF THE SEABOARD COAST LINE RAILROAD AND MIAMI CANAL
AD7409'AND ON THE RAILROAD RIGHT-OF-WAY.
AD7409'
AD7409'TO REACH THE STATION FROM THE POST OFFICE IN SOUTH BAY, GO WEST
AD7409'ON STATE HIGHWAY 80 FOR 0.2 MILE TO THE JUNCTION OF U.S. HIGHWAY
AD7409'27. TURN LEFT AND GO SOUTHERLY ON HIGHWAY 27 FOR 3.90 MILES TO
AD7409'A CROSSROAD (S-832). CONTINUE SOUTH ON HIGHWAY 27 FOR 2.05 MILES
AD7409'TO A SIDE ROAD RIGHT. TURN RIGHT AND GO WEST ON THE NORTH SIDE
AD7409'OF A CANAL FOR 2.45 MILES TO WHERE THE MAIN ROAD TURNS AND
AD7409'CROSSES THE CANAL AT THE ENTRANCE TO A SUGAR PLANT. CROSS THE
AD7409'CANAL AND TURN RIGHT AND GO WEST ON OILED ROAD ALONG THE
AD7409'SOUTH SIDE OF THE CANAL FOR 1.5 MILES TO A CROSSROAD AND CANAL.
AD7409'TURN LEFT AND GO SOUTH ALONG THE EAST SIDE OF THE CANAL FOR
AD7409'1.0 MILE TO A T JUNCTION JUST AFTER CROSSING A RAILROAD TRACK.
AD7409'TURN RIGHT AND GO WEST ON OILED ROAD FOR 4.55 MILES TO A
AD7409'CROSSROAD JUST BEFORE REACHING A BRIDGE CROSSING THE MIAMI
AD7409'CANAL. TURN RIGHT AND GO NORTH FOR 0.05 MILE TO A RAILROAD
AD7409'CROSSING AND STATION ON LEFT AS DESCRIBED.
AD7409'
AD7409'ALL MARKS ARE STANDARD DISKS.
AD7409'
AD7409'STATION MARK, STAMPED BRIDGE 2 1970, IS SET IN A ROUND CONCRETE
AD7409'POST FLUSH WITH THE GROUND. IT IS 44 FEET NORTHWEST OF CENTER
AD7409'OF THE RAILROAD CROSSING, 38 FEET WEST OF CENTER OF THE
AD7409'GRAVELED ROAD, 17.5 FEET WEST OF A RAILROAD CROSSING SIGN, 14
AD7409'FEET NORTHEAST OF THE NORTHEAST CORNER OF THE RAILROAD BRIDGE
AD7409'AND 12.6 FEET NORTH OF THE NORTH RAIL OF THE TRACKS.
AD7409'
AD7409'REFERENCE MARK 3, STAMPED BRIDGE 2 NO 3 1970, IS SET IN A
AD7409'ROUND CONCRETE POST FLUSH WITH THE GROUND. IT IS 28 FEET
AD7409'SOUTHEAST OF CENTER OF THE RAILROAD CROSSING, 21.5 FEET EAST OF
AD7409'CENTER OF THE ROAD, 11.8 FEET SOUTH OF THE SOUTH RAIL AND 1.3
AD7409'FEET WEST OF A RAILROAD CROSSING SIGN.
AD7409'
AD7409'REFERENCE MARK 4, STAMPED BRIDGE 2 NO 4 1970, IS CEMENTED IN A
AD7409'DRILL HOLE IN THE NORTH END OF THE EAST BRIDGE SUPPORT OF THE
AD7409'RAILROAD BRIDGE. IT IS 85 FEET WEST OF CENTER OF THE ROAD, 37
AD7409'FEET WEST OF THE NORTHEAST CORNER OF THE RAILROAD BRIDGE AND
AD7409'4 FEET NORTH AND ABOUT 3 FEET LOWER THAN THE NORTH RAIL.
AD7409'

AD7409'AZIMUTH MARK, STAMPED BRIDGE 2 1970, IS SET IN A ROUND
AD7409'CONCRETE POST FLUSH WITH THE GROUND. IT IS 81 FEET EAST OF THE
AD7409'EAST EDGE OF THE MIAMI CANAL, 47 FEET WEST OF A DITCH, 15 FEET
AD7409'EAST OF CENTER OF THE ROAD AND 2 FEET WEST OF A METAL WITNESS
AD7409'POST.
AD7409'
AD7409'TO REACH THE AZIMUTH MARK FROM THE STATION GO NORTH ON THE
AD7409'GRAVELED ROAD FOR 0.55 MILE TO THE MARK ON THE RIGHT AS DESCRIBED.
AD7409'
AD7409'HEIGHT OF LIGHT ABOVE STATION MARK 3 METERS.
AD7409
AD7409   STATION RECOVERY (1970)
AD7409
AD7409'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
AD7409'RECOVERED IN GOOD CONDITION.
AD7409
AD7409   STATION RECOVERY (1973)
AD7409
AD7409'RECOVERY NOTE BY LOCAL SURVEYOR (INDIVIDUAL OR FIRM) 1973
AD7409'STATION AND AZIMUTH MARK RECOVERED IN GOOD CONDITION.
AD7409
AD7409   STATION RECOVERY (1992)
AD7409
AD7409'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992
AD7409'14.8 KM (9.20 MI) SOUTHERLY ALONG MIAMI CANAL ROAD AND THE WEST LEVEE
AD7409'ROAD OF THE MIAMI CANAL FROM THE POST OFFICE IN LAKE HARBOR, 49.4 M
AD7409'(162.1 FT) EAST OF THE CENTER OF THE ROAD, 22.0 M (72.2 FT) NORTHWEST
AD7409'OF REFERENCE MARK 3, 5.6 M (18.4 FT) WEST OF A SIGN (RAILROAD
AD7409'CROSSING), 4.8 M (15.7 FT) NORTHEAST OF THE NORTHEAST CORNER OF A
AD7409'FLORIDA EAST COAST RAILROAD BRIDGE SPANNING THE MIAMI CANAL, 3.8 M
AD7409'(12.5 FT) NORTH OF THE NEAR RAIL, 0.3 M (1.0 FT) SOUTH OF A WITNESS
AD7409'POST, AND THE MONUMENT PROJECTS 0.1 M (0.3 FT) ABOVE THE GROUND
AD7409'SURFACE.
AD7409
AD7409   STATION RECOVERY (2000)
AD7409
AD7409'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AD7409'THE MARK IS ABOUT 13.6 MI (21.9 KM) SOUTHWEST OF SOUTHBAY, 9.2 MI
AD7409'(14.8 KM) SOUTH OF LAKE HARBOR (ON THE EAST LEVEE ROAD OF THE MIAMI
AD7409'CANAL), IN SECTION 21, TOWNSHIP 45 SOUTH, RANGE 35 EAST. TO REACH THE
AD7409'MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 80 IN SOUTH
AD7409'BAY, GO SOUTH ON U.S. HIGHWAY 27 FOR 3.8 MI (6.1 KM) TO THE JUNCTION
AD7409'OF COUNTY ROAD 827 ON THE RIGHT, TURN RIGHT ON COUNTY ROAD 827 AND GO
AD7409'WEST FOR 4.8 MI (7.7 KM) TO THE END OF THE PAVEMENT, CONTINUE WEST ON
AD7409'COUNTY ROAD 827 FOR 2.95 MI (4.75 KM) TO THE JUNCTION OF MIAMI CANAL
AD7409'(EAST SIDE), TURN LEFT ON THE LEVEE ROAD AND GO SOUTH FOR 3.1 MI (5.0
AD7409'KM) TO THE RAILROAD TRACKS AND THE MARK ON THE RIGHT, SET IN THE TOP
AD7409'OF A ROUND CONCRETE MONUMENT, PROJECTING 0.2 FT (6.1 CM) ABOVE THE
AD7409'LEVEL OF THE GROUND AND THE LEVEE ROAD. LOCATED 238.0 FT (72.5 M)
AD7409'NORTH OF THE APPROXIMATE CENTERLINE OF A EAST-WEST PAVED ROAD, 18.0 FT
AD7409'(5.5 M) WEST OF A RAILROAD CROSSING POLE WITH A PALM BEACH COUNTY
AD7409'WITNESS SIGN, 15.5 FT (4.7 M) NORTH OF THE CENTER OF THE RAILROAD
AD7409'TRACKS AND 1.0 FT (0.3 M) SOUTH OF A CARSONITE WITNESS POST.
AD7409
AD7409   STATION RECOVERY (2002)
AD7409
AD7409'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002
AD7409'RECOVERED IN GOOD CONDITION.

AF6702 ***

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AF6702  DESIGNATION -  C 358       (CONTROL POINT)
AF6702  PID         -  AF6702
AF6702  STATE/COUNTY-  FL/HIGHLANDS
AF6702  USGS QUAD   -  BRIGHTON (1972)
AF6702
AF6702                        *CURRENT SURVEY CONTROL
AF6702  ______________________________________________________________________
AF6702* NAD 83(1999)-  27 14 11.06574(N)    081 03 14.29810(W)     ADJUSTED
AF6702* NAVD 88     -         9.485  (meters)      31.12   (feet)  ADJUSTED
AF6702  ______________________________________________________________________
AF6702  X           -     882,474.540 (meters)                     COMP
AF6702  Y           -  -5,605,897.051 (meters)                     COMP
AF6702  Z           -   2,901,523.482 (meters)                     COMP
AF6702  LAPLACE CORR-          -3.58  (seconds)                    DEFLEC99
AF6702  ELLIP HEIGHT-         -16.551 (meters)          (12/09/02) GPS OBS
AF6702  GEOID HEIGHT-         -26.01  (meters)                     GEOID03
AF6702  DYNAMIC HT  -           9.470 (meters)      31.07  (feet)  COMP
AF6702  MODELED GRAV-     979,104.7   (mgal)                       NAVD 88
AF6702
AF6702  HORZ ORDER  -  A
AF6702  VERT ORDER  -  FIRST     CLASS II
AF6702  ELLP ORDER  -  FOURTH    CLASS I
AF6702
AF6702.The horizontal coordinates were established by GPS observations
AF6702.and adjusted by the National Geodetic Survey in December 2002.
AF6702
AF6702.The orthometric height was determined by differential leveling
AF6702.and adjusted by the NATIONAL GEODETIC SURVEY in November 2001.
AF6702
AF6702.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AF6702
AF6702.The Laplace correction was computed from DEFLEC99 derived deflections.
AF6702
AF6702.The ellipsoidal height was determined by GPS observations
AF6702.and is referenced to NAD 83.
AF6702
AF6702.The geoid height was determined by GEOID03.
AF6702
AF6702.The dynamic height is computed by dividing the NAVD 88
AF6702.geopotential number by the normal gravity value computed on the
AF6702.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AF6702.degrees latitude (g = 980.6199 gals.).
AF6702
AF6702.The modeled gravity was interpolated from observed gravity values.
AF6702
AF6702;                    North         East     Units Scale Factor Converg.
AF6702;SPC FL E     -   321,598.848   194,654.607   MT  0.99994153   -0 01 28.9
AF6702;SPC FL E     - 1,055,112.22    638,629.32    sFT  0.99994153   -0 01 28.9
AF6702;UTM  17      - 3,012,621.101   494,656.431   MT  0.99960035   -0 01 28.9
AF6702
AF6702!             -  Elev Factor  x  Scale Factor =   Combined Factor
AF6702!SPC FL E     -   1.00000260  x   0.99994153  =   0.99994413
AF6702!UTM  17      -   1.00000260  x   0.99960035  =   0.99960295
AF6702
AF6702                          SUPERSEDED SURVEY CONTROL
AF6702
AF6702  NAVD 88 (06/15/91)    9.486  (m)           31.12   (f) UNKNOWN     1 2
AF6702  NGVD 29 (09/01/92)    9.852  (m)           32.32   (f) ADJUSTED    1 2
AF6702
AF6702.Superseded values are not recommended for survey control.
AF6702.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
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AF6702.See file dsdata.txt to determine how the superseded data were derived.
AF6702
AF6702_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML9465612621(NAD 83)
AF6702_MARKER: DV = VERTICAL CONTROL DISK
AF6702_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AF6702_SP_SET: STAINLESS STEEL ROD
AF6702_STAMPING: C 358 1979
AF6702_MARK LOGO: NGS
AF6702_PROJECTION: FLUSH
AF6702_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AF6702_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AF6702_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AF6702+SATELLITE: SATELLITE OBSERVATIONS - January 15, 2007
AF6702_ROD/PIPE-DEPTH: 7.62 meters
AF6702
AF6702 HISTORY   - Date   Condition   Report By
AF6702 HISTORY   - 1979   MONUMENTED   NGS
AF6702 HISTORY   - 20010607 GOOD   EMCINC
AF6702 HISTORY   - 20020212 GOOD   NGS
AF6702 HISTORY   - 20020413 GOOD   MAPTEC
AF6702 HISTORY   - 20050628 GOOD   MACTEC
AF6702 HISTORY   - 20070115 GOOD   DEGROV
AF6702
AF6702   STATION DESCRIPTION
AF6702
AF6702'DESCRIBED BY NATIONAL GEODETIC SURVEY 1979
AF6702'13.8 MI WEST FROM OKEECHOBEE.
AF6702'13.8 MILES WEST ALONG STATE HIGHWAY 70 FROM THE CITY HALL IN
AF6702'OKEECHOBEE, AT THE JUNCTION OF COUNTY ROAD S-721, 111 FEET NORTH OF
AF6702'THE CENTERLINE OF THE HIGHWAY, 55 FEET WEST OF THE CENTERLINE OF THE
AF6702'ROAD AND 1 FOOT EAST OF A FENCE CORNER.
AF6702
AF6702   STATION RECOVERY (2001)
AF6702
AF6702'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
AF6702'RECOVERED AS DESCRIBED.
AF6702'
AF6702'
AF6702'
AF6702
AF6702   STATION RECOVERY (2002)
AF6702
AF6702'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
AF6702'THE STATION IS LOCATED 16 MI (25.8 KM) EAST SOUTHEAST OF LAKE PLACID,
AF6702'13.9 MI (22.4 KM) WEST OF OKEECHOBEE AND ON HIGHWAY RIGHT OF WAY.
AF6702'
AF6702'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 441 AND
AF6702'STATE HIGHWAYS 15 AND 70 IN OKEECHOBEE GO WEST ON HIGHWAY 70 FOR
AF6702'13.9 MI (22.4 KM) TO THE JUNCTION OF COUNTY ROAD S-271 ON THE RIGHT.
AF6702'TURN RIGHT AND THEN LEFT AT A GATE AND THE STATION ON THE LEFT.
AF6702'
AF6702'THE STATION IS LOCATED 38.8 M (111 FT) NORTH OF THE CENTERLINE OF
AF6702'HIGHWAY 70, 16.8 M (55 FT) WEST OF THE CENTERLINE OF THE COUNTY
AF6702'ROAD, 0.3 M (1.0 FT) EAST OF A FENCE CORNER AND 0.3 M (1.0 FT) NORTH
AF6702'OF
AF6702'A METAL WITNESS POST.
AF6702'
AF6702'
AF6702
AF6702   STATION RECOVERY (2002)
AF6702

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AF6702'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AF6702'RECOVERED AS DESCRIBED
AF6702'
AF6702
AF6702                          STATION RECOVERY (2005)
AF6702
AF6702'RECOVERY NOTE BY MACTEC ENGINEERING AND CONSULTING 2005 (CGB)
AF6702'RECOVERED AS DESCRIBED
AF6702
AF6702                          STATION RECOVERY (2007)
AF6702
AF6702'RECOVERY NOTE BY DEGROVE SURVEYORS INCORPORATED 2007
AF6702'RECOVERED IN GOOD CONDITION.
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
 AD8246 ***********************************************************************
 AD8246  DESIGNATION -  C 414       (CONTROL POINT)
 AD8246  PID         -  AD8246
 AD8246  STATE/COUNTY-  FL/PALM BEACH
 AD8246  USGS QUAD   -  LAKE HARBOR (1970)
 AD8246
 AD8246                         *CURRENT SURVEY CONTROL
 AD8246 ______________________________________________________________________
 AD8246* NAD 83(1999)-  26 41 40.62381(N)    080 46 22.23953(W)     ADJUSTED
 AD8246* NAVD 88     -        11.809  (meters)      38.74   (feet)  ADJUSTED
 AD8246 ______________________________________________________________________
 AD8246  X           -     914,335.125 (meters)                     COMP
 AD8246  Y           -  -5,628,371.931 (meters)                     COMP
 AD8246  Z           -   2,848,020.151 (meters)                     COMP
 AD8246  LAPLACE CORR-          -1.23  (seconds)                    DEFLEC99
 AD8246  ELLIP HEIGHT-         -13.158 (meters)          (12/12/02) GPS OBS
 AD8246  GEOID HEIGHT-         -24.97  (meters)                     GEOID03
 AD8246  DYNAMIC HT  -          11.791 (meters)      38.68  (feet)  COMP
 AD8246  MODELED GRAV-     979,105.8   (mgal)                       NAVD 88
 AD8246
 AD8246  HORZ ORDER  -  FIRST
 AD8246  VERT ORDER  -  FIRST     CLASS II
 AD8246  ELLP ORDER  -  FOURTH    CLASS I
 AD8246
 AD8246.The horizontal coordinates were established by GPS observations
 AD8246.and adjusted by the National Geodetic Survey in December 2002.
 AD8246
 AD8246.The orthometric height was determined by differential leveling
 AD8246.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
 AD8246
 AD8246.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD8246
 AD8246.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD8246
 AD8246.The ellipsoidal height was determined by GPS observations
 AD8246.and is referenced to NAD 83.
 AD8246
 AD8246.The geoid height was determined by GEOID03.
 AD8246
 AD8246.The dynamic height is computed by dividing the NAVD 88
 AD8246.geopotential number by the normal gravity value computed on the
 AD8246.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD8246.degrees latitude (g = 980.6199 gals.).
 AD8246
 AD8246.The modeled gravity was interpolated from observed gravity values.
 AD8246
 AD8246;                   North         East     Units Scale Factor Converg.
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AD8246;SPC FL E     -   261,589.473   222,605.602   MT  0.99994748   +0 06 07.4
AD8246;SPC FL E     -   858,231.46    730,331.88   sFT  0.99994748   +0 06 07.4
AD8246;UTM  17      - 2,952,632.202   522,597.889   MT  0.99960630   +0 06 07.4
AD8246
AD8246!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD8246!SPC FL E     -   1.00000207  x   0.99994748  =   0.99994955
AD8246!UTM  17      -   1.00000207  x   0.99960630  =   0.99960837
AD8246
AD8246                          SUPERSEDED SURVEY CONTROL
AD8246
AD8246  NAVD 88 (12/12/02)   11.81   (m)           38.7    (f) LEVELING    3
AD8246  NGVD 29 (09/01/92)   12.237  (m)           40.15   (f) ADJUSTED    1 2
AD8246
AD8246.Superseded values are not recommended for survey control.
AD8246.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8246.See file dsdata.txt to determine how the superseded data were derived.
AD8246
AD8246_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK2259852632(NAD 83)
AD8246_MARKER: I = METAL ROD
AD8246_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AD8246_SP_SET: STAINLESS STEEL ROD
AD8246_STAMPING: C 414 1992
AD8246_MARK LOGO: NGS
AD8246_PROJECTION: FLUSH
AD8246_MAGNETIC: I = MARKER IS A STEEL ROD
AD8246_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8246_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8246+SATELLITE: SATELLITE OBSERVATIONS - May 18, 2002
AD8246_ROD/PIPE-DEPTH: 13.0 meters
AD8246
AD8246  HISTORY     - Date     Condition        Report By
AD8246  HISTORY     - 1992     MONUMENTED       NGS
AD8246  HISTORY     - 20020518 GOOD             MAPTEC
AD8246
AD8246                          STATION DESCRIPTION
AD8246
AD8246'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8246'8.9 KM (5.55 MI) WESTERLY ALONG STATE HIGHWAY 80 FROM THE JUNCTION OF
AD8246'STATE HIGHWAY 880 IN BELLE GLADE, THENCE 0.4 KM (0.25 MI) NORTHERLY
AD8246'ALONG A PAVED ROAD TO THE TOP OF THE LAKE OKEECHOBEE LEVEE, THENCE
AD8246'4.7 KM (2.90 MI) WESTERLY ALONG A LEVEE ROAD, ON THE EXTENDED CENTER
AD8246'FROM A ROAD LEADING SOUTH FROM STATE HIGHWAY 80, 3.8 M (12.5 FT)
AD8246'NORTHEAST OF THE CENTER OF THE LEVEE ROAD, 0.6 M (2.0 FT) BELOW THE
AD8246'LEVEL OF THE ROAD, AND 0.6 M (2.0 FT) NORTHWEST OF A WITNESS POST.
AD8246'NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH LOGO CAP.
AD8246
AD8246                          STATION RECOVERY (2002)
AD8246
AD8246'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD8246'STATION RECOVERY (2002)
AD8246'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD8246'RECOVERED AS DESCRIBED.
AD8246'
AD8246'
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National Geodetic Survey, Retrieval Date = JULY 25, 2007

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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AJ7260 ***********************************************************************
 AJ7260  DESIGNATION -  C 519          (CONTROL POINT)
 AJ7260  PID         -  AJ7260
 AJ7260  STATE/COUNTY-  FL/GLADES
 AJ7260  USGS QUAD   -  LA BELLE (1979)
 AJ7260
 AJ7260                        *CURRENT SURVEY CONTROL
 AJ7260  ______________________________________________________________________
 AJ7260* NAD 83(2007)-  26 51 23.06176(N)    081 22 30.38540(W)     ADJUSTED
 AJ7260* NAVD 88     -         9.821  (meters)      32.22   (feet)  ADJUSTED
 AJ7260  ______________________________________________________________________
 AJ7260  EPOCH DATE  -        2002.00
 AJ7260  X           -     853,911.994 (meters)                     COMP
 AJ7260  Y           -  -5,629,686.215 (meters)                     COMP
 AJ7260  Z           -   2,864,023.527 (meters)                     COMP
 AJ7260  LAPLACE CORR-          -0.23  (seconds)                    DEFLEC99
 AJ7260  ELLIP HEIGHT-         -14.622 (meters)          (02/10/07) ADJUSTED
 AJ7260  GEOID HEIGHT-         -24.46  (meters)                     GEOID03
 AJ7260  DYNAMIC HT  -           9.806 (meters)      32.17  (feet)  COMP
 AJ7260
 AJ7260  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AJ7260  Type    PID    Designation                       North   East  Ellip
 AJ7260  ----------------------------------------------------------------------
 AJ7260  NETWORK AJ7260 C 519                               1.16   1.12   2.16
 AJ7260  ----------------------------------------------------------------------
 AJ7260  MODELED GRAV-     979,108.7   (mgal)                       NAVD 88
 AJ7260
 AJ7260  VERT ORDER  -  FIRST     CLASS II
 AJ7260
 AJ7260.The horizontal coordinates were established by GPS observations
 AJ7260.and adjusted by the National Geodetic Survey in February 2007.
 AJ7260
 AJ7260.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AJ7260.See National Readjustment for more information.
 AJ7260.The horizontal coordinates are valid at the epoch date displayed above.
 AJ7260.The epoch date for horizontal control is a decimal equivalence
 AJ7260.of Year/Month/Day.
 AJ7260
 AJ7260.The orthometric height was determined by differential leveling
 AJ7260.and adjusted in February 2002.
 AJ7260
 AJ7260.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AJ7260
 AJ7260.The Laplace correction was computed from DEFLEC99 derived deflections.
 AJ7260
 AJ7260.The ellipsoidal height was determined by GPS observations
 AJ7260.and is referenced to NAD 83.
 AJ7260
 AJ7260.The geoid height was determined by GEOID03.
 AJ7260
 AJ7260.The dynamic height is computed by dividing the NAVD 88
 AJ7260.geopotential number by the normal gravity value computed on the
 AJ7260.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ7260.degrees latitude (g = 980.6199 gals.).
 AJ7260
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AJ7260.The modeled gravity was interpolated from observed gravity values.
AJ7260
AJ7260;                    North         East     Units Scale Factor Converg.
AJ7260;SPC FL E     -   279,549.558   162,723.651   MT  0.99995832   -0 10 10.1
AJ7260;SPC FL E     -   917,155.51    533,869.18   sFT  0.99995832   -0 10 10.1
AJ7260;UTM  17      - 2,970,586.159   462,736.370   MT  0.99961714   -0 10 10.1
AJ7260
AJ7260!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ7260!SPC FL E     -   1.00000230  x   0.99995832  =   0.99996062
AJ7260!UTM  17      -   1.00000230  x   0.99961714  =   0.99961944
AJ7260
AJ7260                          SUPERSEDED SURVEY CONTROL
AJ7260
AJ7260  NAD 83(1999)-  26 51 23.06237(N)    081 22 30.38602(W) AD(       ) 1
AJ7260  ELLIP H (12/12/02)  -14.627  (m)                       GP(       ) 4 1
AJ7260  NAVD 88 (12/12/02)    9.82   (m)           32.2    (f) LEVELING    3
AJ7260
AJ7260.Superseded values are not recommended for survey control.
AJ7260.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ7260.See file dsdata.txt to determine how the superseded data were derived.
AJ7260
AJ7260_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK6273670586(NAD 83)
AJ7260_MARKER: F = FLANGE-ENCASED ROD
AJ7260_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ7260_STAMPING: C 519 2001 CERP
AJ7260_MARK LOGO: NONE
AJ7260_PROJECTION: RECESSED 5 CENTIMETERS
AJ7260_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ7260_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ7260_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ7260+SATELLITE: SATELLITE OBSERVATIONS - November 19, 2007
AJ7260_ROD/PIPE-DEPTH: 21.9 meters
AJ7260
AJ7260  HISTORY     - Date     Condition        Report By
AJ7260  HISTORY     - 200105   MONUMENTED       FOST
AJ7260  HISTORY     - 20020309 GOOD             MAPTEC
AJ7260  HISTORY     - 20071119 GOOD             NGS
AJ7260
AJ7260                          STATION DESCRIPTION
AJ7260
AJ7260'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)
AJ7260'THE MONUMENT IS LOCATED 7.65 MILES (12.31 KM) SOUTH OF PALMDALE, FL
AJ7260'AND 8.0 MILES (12.87 KM) NORTH OF
AJ7260'LABELLE, FL. IN SECTION 36, TOWNSHIP 42 SOUTH, RANGE 29 EAST.
AJ7260'
AJ7260'OWNERSHIP IS THE FLORIDA DEPARTMENT OF TRANSPORTATION.
AJ7260'
AJ7260'TO REACH THE MONUMENT FROM THE JUNCTION OF STATE ROAD 29 AND US
AJ7260'HIGHWAY 27, SOUTH OF PALMDALE,  GO SOUTH 6.2 MILES
AJ7260'(9.98 KM) ON STATE ROAD 29 AND THE MONUMENT IS ON THE WEST SIDE
AJ7260'(RIGHT) OF THE ROAD. THE
AJ7260'MONUMENT IS 8.0 MILES (12.87 KM) NORTH OF THE INTERSECTION OF US
AJ7260'HIGHWAY 80 AND STATE ROAD 29 IN LA
AJ7260'BELLE.
AJ7260'
AJ7260'THE MONUMENT IS 72.8 FEET (22.19 M) WEST OF THE CENTERLINE OF STATE
AJ7260'ROAD 29, 270.2 FEET (82.36 M)
AJ7260'NORTHEAST OF THE NORTHEAST CORNER OF THE WINGWALL OF A TRIPLE CULVERT
AJ7260'AND 5.0 FEET (1.52 M)
AJ7260'EAST OF A CARSONITE WITNESS POST AT BARBED WIRE FENCE. NOTE ACCESS TO
AJ7260'THE DATUM POINT (THE TOP
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AJ7260'OF A STAINLESS STEEL ROD) IS HAD THROUGH A 5 INCH LOGO CAP. NOTE A
AJ7260'MAGNET WAS PLACED INSIDE THE
AJ7260'PVC PIPE.
AJ7260
AJ7260                          STATION RECOVERY (2002)
AJ7260
AJ7260'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ7260'RECOVERED AS DESCRIBED
AJ7260'
AJ7260
AJ7260                          STATION RECOVERY (2007)
AJ7260
AJ7260'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2007 (DR)
AJ7260'RECOVERED AS DESCRIBED

*** retrieval complete.
Elapsed Time = 00:00:01


AJ8862 ***********************************************************************
 AJ8862  DESIGNATION -  C 547         (CONTROL POINT)
 AJ8862  PID         -  AJ8862
 AJ8862  STATE/COUNTY-  FL/MARTIN
 AJ8862  USGS QUAD   -  BIG MOUND NORTH (1970)
 AJ8862
 AJ8862                        *CURRENT SURVEY CONTROL
 AJ8862  ______________________________________________________________________
 AJ8862* NAD 83(1999)-  26 59 09.86374(N)    080 24 56.68388(W)     ADJUSTED
 AJ8862* NAVD 88     -         7.333  (meters)      24.06   (feet)  ADJUSTED
 AJ8862  ______________________________________________________________________
 AJ8862  X           -     946,967.687 (meters)                     COMP
 AJ8862  Y           -  -5,608,181.463 (meters)                     COMP
 AJ8862  Z           -   2,876,831.805 (meters)                     COMP
 AJ8862  LAPLACE CORR-          -1.91  (seconds)                    DEFLEC99
 AJ8862  ELLIP HEIGHT-         -19.277 (meters)          (12/12/02) GPS OBS
 AJ8862  GEOID HEIGHT-         -26.61  (meters)                     GEOID03
 AJ8862  DYNAMIC HT  -           7.322 (meters)      24.02  (feet)  COMP
 AJ8862  MODELED GRAV-     979,095.8   (mgal)                       NAVD 88
 AJ8862
 AJ8862  HORZ ORDER  -  FIRST
 AJ8862  VERT ORDER  -  FIRST     CLASS II
 AJ8862  ELLP ORDER  -  THIRD     CLASS I
 AJ8862
 AJ8862.The horizontal coordinates were established by GPS observations
 AJ8862.and adjusted by the National Geodetic Survey in December 2002.
 AJ8862
 AJ8862.The orthometric height was determined by differential leveling
 AJ8862.and adjusted by the NATIONAL GEODETIC SURVEY in May 2002.
 AJ8862
 AJ8862.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AJ8862
 AJ8862.The Laplace correction was computed from DEFLEC99 derived deflections.
 AJ8862
 AJ8862.The ellipsoidal height was determined by GPS observations
 AJ8862.and is referenced to NAD 83.
 AJ8862
 AJ8862.The geoid height was determined by GEOID03.
 AJ8862
 AJ8862.The dynamic height is computed by dividing the NAVD 88
 AJ8862.geopotential number by the normal gravity value computed on the
 AJ8862.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
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AJ8862.degrees latitude (g = 980.6199 gals.).
AJ8862
AJ8862.The modeled gravity was interpolated from observed gravity values.
AJ8862
AJ8862;   North   East   Units Scale Factor Converg.
AJ8862;SPC FL E   -   293,995.191   257,994.440   MT 0.99998268   +0 15 54.5
AJ8862;SPC FL E   -   964,549.22   846,436.76   sFT 0.99998268   +0 15 54.5
AJ8862;UTM 17   - 2,985,026.863   557,974.652   MT 0.99964149   +0 15 54.5
AJ8862
AJ8862!   - Elev Factor x Scale Factor =   Combined Factor
AJ8862!SPC FL E   -   1.00000303 x   0.99998268 =   0.99998571
AJ8862!UTM 17   -   1.00000303 x   0.99964149 =   0.99964452
AJ8862
AJ8862   SUPERSEDED SURVEY CONTROL
AJ8862
AJ8862 NAVD 88 (12/12/02)   7.33   (m)   24.0   (f) LEVELING   3
AJ8862
AJ8862.Superseded values are not recommended for survey control.
AJ8862.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ8862.See file dsdata.txt to determine how the superseded data were derived.
AJ8862
AJ8862_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK5797585027(NAD 83)
AJ8862_MARKER: DD = SURVEY DISK
AJ8862_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ8862_STAMPING: C 547 2001 CERP
AJ8862_MARK LOGO: USE
AJ8862_PROJECTION: RECESSED 10 CENTIMETERS
AJ8862_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ8862_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ8862+STABILITY: SURFACE MOTION
AJ8862_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8862+SATELLITE: SATELLITE OBSERVATIONS - April 18, 2002
AJ8862
AJ8862 HISTORY   - Date   Condition   Report By
AJ8862 HISTORY   - 20011003 MONUMENTED   MOREKL
AJ8862 HISTORY   - 20020418 GOOD   MAPTEC
AJ8862
AJ8862   STATION DESCRIPTION
AJ8862
AJ8862'DESCRIBED BY MORGAN AND EKLUND INC 2001 (MAB)
AJ8862'THE STATION IS LOCATED ABOUT 41.9 KM (26.0 MILES) NORTHEAST OF BELLE
AJ8862'GLADE, ABOUT 32.3 KM
AJ8862'(20.1 MILES) SOUTHEAST OF INDIANTOWN IN SECTION 23, TOWNSHIP 40 SOUTH,
AJ8862'RANGE 39 EAST.
AJ8862'
AJ8862'OWNERSHIP MARTIN COUNTY (STATE ROAD 710 RIGHT OF WAY)
AJ8862'
AJ8862'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 76 AND STATE
AJ8862'ROAD 710 AT THE
AJ8862'BRIDGE OVER STATE ROAD 76 AND THE ST. LUCIE CANAL, GO EAST ON STATE
AJ8862'ROAD 710 FOR 4.75 KM
AJ8862'(2.95 MILES) TO THE MARK ON THE LEFT.
AJ8862'
AJ8862'THE MARK IS 30.2 METERS (99.0 FEET) WEST OF A WOOD UTILITY POLE, 22.6
AJ8862'METERS (74.2 FEET) EAST
AJ8862'OF AN 18 INCH PALM TREE AND 6.5 METERS (21.4 FEET) SOUTH OF A
AJ8862'CARSONITE WITNESS POST.
AJ8862'
AJ8862'NOTE A MAGNET WAS PLACED 0.21 METERS (0.7 FEET) SOUTH OF AND 0.1
AJ8862'METER (0.3 FEET) BELOW
AJ8862'THE MARK.

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 AJ8862'
 AJ8862'
 AJ8862
 AJ8862                          STATION RECOVERY (2002)
 AJ8862
 AJ8862'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AJ8862'THE STATION IS LOCATED ABOUT 41.9 KM (26.0 MILES) NORTHEAST OF BELLE
 AJ8862'GLADE, ABOUT 32.3 KM
 AJ8862'(20.1 MILES) SOUTHEAST OF INDIANTOWN IN SECTION 23, TOWNSHIP 40 SOUTH,
 AJ8862'RANGE 39 EAST.
 AJ8862'
 AJ8862'OWNERSHIP  MARTIN COUNTY (STATE ROAD 710 RIGHT OF WAY)
 AJ8862'
 AJ8862'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 76 AND STATE
 AJ8862'ROAD 710 AT THE
 AJ8862'BRIDGE OVER STATE ROAD 76 AND THE ST. LUCIE CANAL, GO EAST ON STATE
 AJ8862'ROAD 710 FOR 4.75 KM
 AJ8862'(2.95 MILES) TO THE MARK ON THE LEFT.
 AJ8862'
 AJ8862'THE MARK IS 30.2 METERS (99.0 FEET) WEST OF A WOOD UTILITY POLE, 22.6
 AJ8862'METERS (74.2 FEET) EAST
 AJ8862'OF AN 18 INCH PALM TREE AND 6.5 METERS (21.4 FEET) SOUTH OF A
 AJ8862'CARSONITE WITNESS POST.
 AJ8862'
 AJ8862'NOTE  A MAGNET WAS PLACED 0.21 METERS (0.7 FEET) SOUTH OF AND 0.1
 AJ8862'METER (0.3 FEET) BELOW
 AJ8862'THE MARK.
 AJ8862'
 AJ8862'STATION RECOVERY (2002)
 AJ8862'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP) . RECOVERED AS
 AJ8862'DESCRIBED.
 AJ8862'
 AJ8862’
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AA7674 ***********************************************************************
 AA7674  DESIGNATION -  C T2                (CONTROL POINT)
 AA7674  PID         -  AA7674
 AA7674  STATE/COUNTY-  FL/ST LUCIE
 AA7674  USGS QUAD   -  NORTH OF BLUEFIELD (1970)
 AA7674
 AA7674                        *CURRENT SURVEY CONTROL
 AA7674  ______________________________________________________________________
 AA7674* NAD 83(2007)-  27 17 40.46874(N)    080 34 45.27189(W)     ADJUSTED
 AA7674* NAVD 88     -         8.416  (meters)      27.61   (feet)  ADJUSTED
 AA7674  ______________________________________________________________________
 AA7674  EPOCH DATE  -        2002.00
 AA7674  X           -     928,408.286 (meters)                     COMP
 AA7674  Y           -  -5,595,478.178 (meters)                     COMP
 AA7674  Z           -   2,907,251.801 (meters)                     COMP
 AA7674  LAPLACE CORR-          -1.25  (seconds)                    DEFLEC99
 AA7674  ELLIP HEIGHT-        -18.611 (meters)          (02/10/07) ADJUSTED
 AA7674  GEOID HEIGHT-        -27.03  (meters)                     GEOID03
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AA7674  DYNAMIC HT  -          8.403 (meters)      27.57  (feet)  COMP
AA7674
AA7674  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AA7674  Type    PID    Designation                      North   East  Ellip
AA7674  ----------------------------------------------------------------
AA7674  NETWORK AA7674 C T2                               0.76   0.71   1.31
AA7674  ----------------------------------------------------------------
AA7674  MODELED GRAV-     979,112.8   (mgal)                       NAVD 88
AA7674
AA7674  VERT ORDER  -  FIRST     CLASS II
AA7674
AA7674.The horizontal coordinates were established by GPS observations
AA7674.and adjusted by the National Geodetic Survey in February 2007.
AA7674
AA7674.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AA7674.See National Readjustment for more information.
AA7674.The horizontal coordinates are valid at the epoch date displayed above.
AA7674.The epoch date for horizontal control is a decimal equivalence
AA7674.of Year/Month/Day.
AA7674
AA7674.The orthometric height was determined by differential leveling
AA7674.and adjusted in May 2002.
AA7674
AA7674.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AA7674
AA7674.The Laplace correction was computed from DEFLEC99 derived deflections.
AA7674
AA7674.The ellipsoidal height was determined by GPS observations
AA7674.and is referenced to NAD 83.
AA7674
AA7674.The geoid height was determined by GEOID03.
AA7674
AA7674.The dynamic height is computed by dividing the NAVD 88
AA7674.geopotential number by the normal gravity value computed on the
AA7674.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AA7674.degrees latitude (g = 980.6199 gals.).
AA7674
AA7674.The modeled gravity was interpolated from observed gravity values.
AA7674
AA7674;                    North         East     Units Scale Factor Converg.
AA7674;SPC FL E     -   328,112.855   241,650.668   MT  0.99996258   +0 11 34.6
AA7674;SPC FL E     - 1,076,483.59    792,815.57   sFT  0.99996258   +0 11 34.6
AA7674;UTM  17      - 3,019,132.885   541,636.457   MT  0.99962140   +0 11 34.6
AA7674
AA7674!             -  Elev Factor  x  Scale Factor =   Combined Factor
AA7674!SPC FL E     -   1.00000292  x   0.99996258  =   0.99996550
AA7674!UTM  17      -   1.00000292  x   0.99962140  =   0.99962432
AA7674
AA7674                          SUPERSEDED SURVEY CONTROL
AA7674
AA7674  ELLIP H (04/24/07)  -18.669  (m)                        GP(       ) 4 2
AA7674  NAD 83(1999)-  27 17 40.46898(N)    080 34 45.27243(W) AD(       ) 1
AA7674  ELLIP H (06/19/01)  -18.585  (m)                        GP(       ) 4 1
AA7674  NAD 83(1990)-  27 17 40.46784(N)    080 34 45.27143(W) AD(       ) 1
AA7674  ELLIP H (06/21/95)  -18.549  (m)                        GP(       ) 3 2
AA7674
AA7674.Superseded values are not recommended for survey control.
AA7674.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AA7674.See file dsdata.txt to determine how the superseded data were derived.
AA7674
AA7674_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL4163619133(NAD 83)
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AA7674_MARKER: DD = SURVEY DISK
AA7674_SETTING: 4 = OBJECT SURROUNDED BY MASS OF CONCRETE
AA7674_SP_SET: SURROUNDED BY MASS OF CONCRETE
AA7674_STAMPING: C+T 2
AA7674_MARK LOGO: FL-111
AA7674_MAGNETIC: N = NO MAGNETIC MATERIAL
AA7674_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AA7674+STABILITY: SURFACE MOTION
AA7674_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AA7674+SATELLITE: SATELLITE OBSERVATIONS - June 01, 2004
AA7674
AA7674 HISTORY   - Date   Condition   Report By
AA7674 HISTORY   - 1993   MONUMENTED   GCYI
AA7674 HISTORY   - 19950208 GOOD   SFLWMD
AA7674 HISTORY   - 20010906 GOOD   FOST
AA7674 HISTORY   - 20040601 GOOD   CREEI
AA7674
AA7674   STATION DESCRIPTION
AA7674
AA7674'DESCRIBED BY G.C.Y., INCORPORATED 1993 (HAB)
AA7674'POINT CAN BE FOUND AT THE WESTERLY END OF GERMANY CANAL ROAD AT THE
AA7674'INTERSECTION OF GERMANY CANAL ROAD AND CANAL C-23, BEING 14 FT (4.27
AA7674'M) EAST OF THE EAST TOP OF BANK OF CANAL C-23 AND BEING 1.5 FT (0.46
AA7674'M) WEST OF A METAL GUARD RAIL AT THE WESTERLY END OF GERMANY CANAL
AA7674'ROAD, ALSO HAVING A METAL WITNESS POST 2.6 FT (0.79 M) WEST OF SAID
AA7674'MONUMENT.
AA7674'
AA7674'SET P.K. NAIL AND DISK, GCY LB4108, WITH AN AZIMUTH OF 156 DEGREES, 44
AA7674'MINUTES AT A DISTANCE OF 31.97 FT (9.74 M) . SET AN X-CUT IN THE TOP
AA7674'OF A CONCRETE POST FOR THE GUARD RAIL WITH AN AZIMUTH OF 07 DEGREES,
AA7674'35 MINUTES AT A DISTANCE OF 3.03 FT (0.92 M) . ALSO SET P.K. NAIL AND
AA7674'DISK, GCY LB4108, IN ASPHALT WITH AN AZIMUTH OF 103 DEGREES, 00
AA7674'MINUTES AT A DISTANCE OF 19.49 FT (5.94 M) .
AA7674
AA7674   STATION RECOVERY (1995)
AA7674
AA7674'RECOVERY NOTE BY S FL WATER MGMT DIST 1995 (MEH)
AA7674'RECOVERED AS DESCRIBED.
AA7674
AA7674   STATION RECOVERY (2001)
AA7674
AA7674'RECOVERY NOTE BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)
AA7674'THE MONUMENT WAS RECOVERED AS DESCRIBED.
AA7674'
AA7674
AA7674   STATION RECOVERY (2004)
AA7674
AA7674'RECOVERY NOTE BY CREECH ENGINEERS INC 2004 (SAL)
AA7674'RECOVERY NOTE BY CREECH ENGINEERS, INCORPORATED. - MELBOURNE 2006
AA7674'(DTB) RECOVERED AS DESCRIBED WITH THE FOLLOWING CHANGES---
AA7674'REFERENCES-- SET MAG NAIL AND DISK --- REFERENCE. PT. LB 6705 ---
AA7674'AT THE WEST EDGE OF PAVEMENT OF AN ASPHALT ROAD WITH NO NAME ON A
AA7674'MAGNETIC AZIMUTH OF 128 DEGREES AT A DISTANCE OF 15.50 FT (4.72 M).
AA7674'SET 5/8 INCH (13 CM) IRON ROD AND CAP --- REFERENCE LB 6705 --- ON A
AA7674'MAGNETIC AZIMUTH OF 204 DEGREES AT A DISTANCE OF 20.52 FT (6.25 M).
AA7674'SET MAG NAIL AND DISK --- REFERENCE. PT. LB 6705 --- ON TOP OF A
AA7674'WOOD GUARD RAIL POST ON A MAGNETIC AZIMUTH OF 350 DEGREES AT A
AA7674'DISTANCE OF 48.15 FT (14.68 M).

*** retrieval complete.
Elapsed Time = 00:00:00

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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AC9272 ***********************************************************************
 AC9272  DESIGNATION -  CORNER AZ MK           (CONTROL POINT)
 AC9272  PID         -  AC9272
 AC9272  STATE/COUNTY-  FL/BROWARD
 AC9272  USGS QUAD   -  NORTH OF LONE PALM (1979)
 AC9272
 AC9272                        *CURRENT SURVEY CONTROL
 AC9272  ______________________________________________________________________
 AC9272* NAD 83(1986)-  26 19 50.     (N)    080 52 23.     (W)     SCALED
 AC9272* NAVD 88     -         7.517  (meters)      24.66   (feet)  ADJUSTED
 AC9272  ______________________________________________________________________
 AC9272  GEOID HEIGHT-         -24.79  (meters)                     GEOID03
 AC9272  DYNAMIC HT  -           7.505 (meters)      24.62  (feet)  COMP
 AC9272  MODELED GRAV-     979,055.0   (mgal)                       NAVD 88
 AC9272
 AC9272  VERT ORDER  -  FIRST     CLASS II
 AC9272
 AC9272.The horizontal coordinates were scaled from a topographic map and have
 AC9272.an estimated accuracy of +/- 6 seconds.
 AC9272
 AC9272.The orthometric height was determined by differential leveling
 AC9272.and adjusted in October 1999.
 AC9272
 AC9272.The geoid height was determined by GEOID03.
 AC9272
 AC9272.The dynamic height is computed by dividing the NAVD 88
 AC9272.geopotential number by the normal gravity value computed on the
 AC9272.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AC9272.degrees latitude (g = 980.6199 gals.).
 AC9272
 AC9272.The modeled gravity was interpolated from observed gravity values.
 AC9272
 AC9272;                    North         East    Units  Estimated Accuracy
 AC9272;SPC FL E     -   221,240.      212,670.      MT  (+/- 180 meters Scaled)
 AC9272
 AC9272                           SUPERSEDED SURVEY CONTROL
 AC9272
 AC9272.No superseded survey control is available for this station.
 AC9272
 AC9272_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK126122(NAD 83)
 AC9272_MARKER: DZ = AZIMUTH MARK DISK
 AC9272_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AC9272_STAMPING: CORNER 1970
 AC9272_MARK LOGO: CGS
 AC9272_MAGNETIC: N = NO MAGNETIC MATERIAL
 AC9272_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AC9272+STABILITY: SURFACE MOTION
 AC9272_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AC9272+SATELLITE: SATELLITE OBSERVATIONS - June 18, 2007
 AC9272
 AC9272  HISTORY     - Date     Condition        Report By
 AC9272  HISTORY     - 1970     MONUMENTED       CGS
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AC9272 HISTORY   - 19960927 GOOD   FLDEP
AC9272 HISTORY   - 20010122 GOOD   FLDEP
AC9272 HISTORY   - 20070618 GOOD   GCT
AC9272
AC9272   STATION DESCRIPTION
AC9272
AC9272'DESCRIBED BY FL DEPT OF ENV PRO 1996 (VAJ)
AC9272'THE MARK IS ABOUT 29.3 MI (47.2 KM) SOUTH-SOUTHEAST OF CLEWISTON, 27.5
AC9272'MI (44.3 KM) SOUTH-SOUTHWEST OF BELLE GLADE IN ESTIMATED SECTION 7,
AC9272'TOWNSHIP 48 SOUTH, RANGE 35 EAST. TO REACH THE MARK FROM THE POST
AC9272'OFFICE IN LAKE HARBOR, GO SOUTHERLY ON THE MIAMI CANAL ROAD (WEST SIDE
AC9272'OF CANAL) FOR 0.65 MI (1.05 KM) TO THE END OF THE PAVEMENT, CONTINUE
AC9272'SOUTHERLY ON THE MIAMI CANAL ROAD FOR 2.35 MI (3.78 KM) TO THE
AC9272'JUNCTION OF ROGERS ROAD ON THE RIGHT, CONTINUE SOUTHERLY ON THE MIAMI
AC9272'CANAL ROAD FOR 6.25 MI (10.06 KM) TO THE INTERSECTION OF A PAVED ROAD,
AC9272'TURN LEFT ON THE PAVED ROAD AND GO EASTERLY FOR 0.05 MI (0.08 KM) TO
AC9272'THE EAST SIDE OF THE MIAMI CANAL AND A DIRT LEVEE ROAD ON THE RIGHT,
AC9272'TURN RIGHT ON THE DIRT LEVEE ROAD AND GO SOUTHERLY FOR 16.85 MI (27.12
AC9272'KM) TO THE Y-JUNCTION OF LEVEE ROAD NUMBER L-5 (NORTH SIDE OF CANAL) ,
AC9272'TURN RIGHT ON LEVEE ROAD NUMBER L-5 AND GO SOUTH FOR 0.05 MI (0.08 KM)
AC9272'TO THE SOUTH SIDE OF THE CANAL AND THE T-JUNCTION OF LEVEE ROAD NUMBER
AC9272'L-5, TURN RIGHT ON LEVEE ROAD NUMBER L-5 AND GO WEST FOR 0.05 MI (0.08
AC9272'KM) TO PUMP STATION NUMBER 8, CONTINUE WEST ON LEVEE ROAD NUMBER L-4
AC9272'(SOUTH SIDE OF CANAL) FOR 3.7 MI (6.0 KM) TO A BOAT RAMP ON THE RIGHT
AC9272'AND THE L-28 CANAL ON THE LEFT, CONTINUE WEST ON THE LEVEE ROAD FOR
AC9272'2.5 MI (4.0 KM) TO A TURNOUT AND THE MARK ON THE LEFT SET NEAR THE
AC9272'WEST END OF THE TURNOUT FLUSH WITH THE GROUND. LOCATED 89.6 FT (27.3
AC9272'M) WEST OF THE APPROXIMATE EAST END OF THE TURNOUT, 49.0 FT (14.9 M)
AC9272'EAST OF THE APPROXIMATE WEST END OF THE TURNOUT, 26.4 FT (8.0 M) SOUTH
AC9272'OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD AND 1.2 FT (0.4 M)
AC9272'SOUTHEAST OF A METAL WITNESS SIGN. NOTE CONTACT GENE TANNER, SOUTH
AC9272'FLORIDA WATER MANAGEMENT, REGIONAL DIRECTOR, CLEWISTON FIELD STATION,
AC9272'PHONE NUMBER 813-983-1431.
AC9272
AC9272   STATION RECOVERY (2001)
AC9272
AC9272'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
AC9272'THE MARK IS ABOUT 40.0 MI (64.4 KM) WEST OF ANDYTOWN, 15.0 MI (24.1
AC9272'KM) NORTHEAST OF SNAKE ROAD (I-75 EXIT 14) , IN ESTIMATED SECTION 7,
AC9272'TOWNSHIP 48 SOUTH, RANGE 35 EAST. TO REACH THE MARK FROM THE JUNCTION
AC9272'OF SNAKE ROAD (GOVERNMENT ROAD) AND INTERSTATE HIGHWAY 75 (EXIT 14)
AC9272'NEAR ANDYTOWN, GO NORTH OF SNAKE ROAD (GOVERNMENT ROAD) FOR 10.25 MI
AC9272'(16.50 KM) TO BROWARD COUNTY LINE, CONTINUE WESTERLY ON SNAKE ROAD
AC9272'(GOVERNMENT ROAD) FOR 1.0 MI (1.6 KM) TO THE JUNCTION OF A LIME STONE
AC9272'ROAD AND A PUMP HOUSE ON THE RIGHT, TURN RIGHT ON THE LIME STONE ROAD
AC9272'AND GO NORTH THEN EAST FOR 1.9 MI (3.1 KM) TO A 90 DEGREE TURN LEFT,
AC9272'CONTINUE NORTH ON THE LIME STONE ROAD FOR 1.05 MI (1.69 KM) TO ANOTHER
AC9272'90 DEGREE TURN RIGHT AND A PUMP HOUSE STRUCTURE NUMBER G-409 ON THE
AC9272'RIGHT, CONTINUE EAST ON THE LIME STONE ROAD CROSSING OVER A SMALL
AC9272'BRIDGE FOR 0.05 MI (0.08 KM) TO THE JUNCTION OF LEVEE ROAD 3
AC9272'(NORTHWESTERLY AND LEVEE ROAD 4 (SOUTHEASTERLY) , TURN RIGHT ON LEVEE
AC9272'ROAD 4 AND GO EAST FOR ABOUT ABOUT 100.0 FT (30.5 M) TO THE JUNCTION
AC9272'OF LEVEE ROAD 4 (NORTHSIDE AND SOUTHSIDE) , TURN RIGHT ON LEVEE ROAD 4
AC9272'(SOUTHSIDE) AND GO SOUTH THEN EAST FOR 0.5 MI (0.8 KM) TO THE WEST END
AC9272'OF A TURNOUT ON THE RIGHT AND THE MARK ON THE RIGHT, SET IN THE TOP OF
AC9272'A ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND AND LEVEL WITH THE
AC9272'LEVEE ROAD. LOCATED 90.0 FT (27.4 M) WEST OF THE APPROXIMATE EAST END
AC9272'OF THE TURNOUT, 50.0 FT (15.2 M) EAST OF THE APPROXIMATE WEST END OF
AC9272'THE TURNOUT, 26.4 FT (8.0 M) SOUTH OF THE APPROXIMATE CENTERLINE OF
AC9272'THE LEVEE ROAD AND 1.2 FT (0.4 M) SOUTHEAST OF A METAL WITNESS POST.
AC9272'NOTE FOR KEY CONTACT SOUTH FLORIDA WATER MANAGEMENT, REGIONAL

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AC9272'DIRECTOR, CLEWISTON FIELD STATION, PHONE NUMBER 813-983-1431 AND
AC9272'MICCOSUKEE ADMINISTRATION OFFICE COMPLEX, PHONE NUMBER 305-223-8380.
AC9272
AC9272                          STATION RECOVERY (2007)
AC9272
AC9272'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (WBM)
AC9272'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:01
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 AJ8257 ***********************************************************************
AJ8257  DESIGNATION -  EDN 6 25         (CONTROL POINT)
AJ8257  PID         -  AJ8257
AJ8257  STATE/COUNTY-  FL/MARTIN
AJ8257  USGS QUAD   -  INDIANTOWN (1983)
AJ8257
AJ8257                        *CURRENT SURVEY CONTROL
AJ8257  ______________________________________________________________________
AJ8257* NAD 83(1999)-  27 00 41.60022(N)    080 27 20.35371(W)     ADJUSTED
AJ8257* NAVD 88     -         8.973  (meters)      29.44   (feet)  ADJUSTED
AJ8257  ______________________________________________________________________
AJ8257  X           -     942,848.884 (meters)                     COMP
AJ8257  Y           -  -5,607,577.040 (meters)                     COMP
AJ8257  Z           -   2,879,348.337 (meters)                     COMP
AJ8257  LAPLACE CORR-          -1.98  (seconds)                    DEFLEC99
AJ8257  ELLIP HEIGHT-         -17.680 (meters)          (12/12/02) GPS OBS
AJ8257  GEOID HEIGHT-         -26.64  (meters)                     GEOID03
AJ8257  DYNAMIC HT  -           8.959 (meters)      29.39  (feet)  COMP
AJ8257  MODELED GRAV-     979,090.3   (mgal)                       NAVD 88
AJ8257
AJ8257  HORZ ORDER  -  FIRST
AJ8257  VERT ORDER  -  FIRST     CLASS II
AJ8257  ELLP ORDER  -  THIRD     CLASS I
AJ8257
AJ8257.The horizontal coordinates were established by GPS observations
AJ8257.and adjusted by the National Geodetic Survey in December 2002.
AJ8257
AJ8257.The orthometric height was determined by differential leveling
AJ8257.and adjusted by the NATIONAL GEODETIC SURVEY in April 2002.
AJ8257
AJ8257.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ8257
AJ8257.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ8257
AJ8257.The ellipsoidal height was determined by GPS observations
AJ8257.and is referenced to NAD 83.
AJ8257
AJ8257.The geoid height was determined by GEOID03.
AJ8257
AJ8257.The dynamic height is computed by dividing the NAVD 88
AJ8257.geopotential number by the normal gravity value computed on the
AJ8257.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ8257.degrees latitude (g = 980.6199 gals.).
AJ8257
AJ8257.The modeled gravity was interpolated from observed gravity values.
AJ8257
AJ8257;                   North         East     Units Scale Factor Converg.
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AJ8257;SPC FL E     -   296,800.930   254,020.801   MT  0.99997719   +0 14 50.0
AJ8257;SPC FL E     -   973,754.38    833,399.91   sFT  0.99997719   +0 14 50.0
AJ8257;UTM  17      - 2,987,831.644   554,002.369   MT  0.99963600   +0 14 50.0
AJ8257
AJ8257!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ8257!SPC FL E     -   1.00000278  x   0.99997719  =   0.99997997
AJ8257!UTM  17      -   1.00000278  x   0.99963600  =   0.99963878
AJ8257
AJ8257                          SUPERSEDED SURVEY CONTROL
AJ8257
AJ8257  NAVD 88 (12/12/02)    8.97   (m)           29.4    (f) LEVELING    3
AJ8257
AJ8257.Superseded values are not recommended for survey control.
AJ8257.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ8257.See file dsdata.txt to determine how the superseded data were derived.
AJ8257
AJ8257_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK5400287832(NAD 83)
AJ8257_MARKER: DD = SURVEY DISK
AJ8257_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE
AJ8257_SP_SET: RAILROAD ABUTMENT
AJ8257_STAMPING: EDN 6 25 1938
AJ8257_MARK LOGO: USE
AJ8257_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ8257_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ8257_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8257+SATELLITE: SATELLITE OBSERVATIONS - October 24, 2004
AJ8257
AJ8257  HISTORY     - Date     Condition        Report By
AJ8257  HISTORY     - 1938     MONUMENTED       USE
AJ8257  HISTORY     - 20010902 GOOD             FOST
AJ8257  HISTORY     - 20020418 GOOD             MAPTEC
AJ8257  HISTORY     - 20041024 GOOD             FLDEP
AJ8257
AJ8257                          STATION DESCRIPTION
AJ8257
AJ8257'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)
AJ8257'THE MONUMENT WAS RECOVERED AS DESCRIBED IN L26234.
AJ8257'
AJ8257
AJ8257                          STATION RECOVERY (2002)
AJ8257
AJ8257'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ8257'STATION RECOVERY (2002)
AJ8257'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AJ8257'RECOVERED AS DESCRIBED.
AJ8257'
AJ8257'
AJ8257
AJ8257                          STATION RECOVERY (2004)
AJ8257
AJ8257'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
AJ8257'RECOVERED AS DESCRIBED.  NOTE MARK NOT LEVELED TO.
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National Geodetic Survey, Retrieval Date = JULY 25, 2007

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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AD8735 ***********************************************************************
 AD8735  DESIGNATION -  FISH              (CONTROL POINT)
 AD8735  PID         -  AD8735
 AD8735  STATE/COUNTY-  FL/GLADES
 AD8735  USGS QUAD   -  PALMDALE (1973)
 AD8735
 AD8735                        *CURRENT SURVEY CONTROL
 AD8735  ______________________________________________________________________
 AD8735* NAD 83(2007)-  26 56 01.68762(N)    081 18 54.44269(W)     ADJUSTED
 AD8735* NAVD 88     -        10.903  (meters)      35.77   (feet)  ADJUSTED
 AD8735  ______________________________________________________________________
 AD8735  EPOCH DATE  -        2002.00
 AD8735  X           -     859,219.723 (meters)                     COMP
 AD8735  Y           -  -5,624,955.263 (meters)                     COMP
 AD8735  Z           -   2,871,672.018 (meters)                     COMP
 AD8735  LAPLACE CORR-          -1.05  (seconds)                    DEFLEC99
 AD8735  ELLIP HEIGHT-         -13.624 (meters)          (02/10/07) ADJUSTED
 AD8735  GEOID HEIGHT-         -24.53  (meters)                     GEOID03
 AD8735  DYNAMIC HT  -          10.887 (meters)      35.72  (feet)  COMP
 AD8735
 AD8735  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AD8735  Type    PID    Designation                      North   East  Ellip
 AD8735  ----------------------------------------------------------------------
 AD8735  NETWORK AD8735 FISH                              0.59   0.59   1.51
 AD8735  ----------------------------------------------------------------------
 AD8735  MODELED GRAV-     979,120.8   (mgal)                      NAVD 88
 AD8735
 AD8735  VERT ORDER  -  FIRST     CLASS II
 AD8735
 AD8735.The horizontal coordinates were established by GPS observations
 AD8735.and adjusted by the National Geodetic Survey in February 2007.
 AD8735
 AD8735.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AD8735.See National Readjustment for more information.
 AD8735.The horizontal coordinates are valid at the epoch date displayed above.
 AD8735.The epoch date for horizontal control is a decimal equivalence
 AD8735.of Year/Month/Day.
 AD8735
 AD8735.The orthometric height was determined by differential leveling
 AD8735.and adjusted in February 2002.
 AD8735.WARNING-GPS observations at this control monument resulted in a GPS
 AD8735.derived orthometric height which differed from the leveled height by
 AD8735.more than one decimeter (0.1 meter).
 AD8735
 AD8735.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD8735
 AD8735.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD8735
 AD8735.The ellipsoidal height was determined by GPS observations
 AD8735.and is referenced to NAD 83.
 AD8735
 AD8735.The geoid height was determined by GEOID03.
 AD8735
 AD8735.The dynamic height is computed by dividing the NAVD 88
 AD8735.geopotential number by the normal gravity value computed on the
 AD8735.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD8735.degrees latitude (g = 980.6199 gals.).
 AD8735
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AD8735.The modeled gravity was interpolated from observed gravity values.
AD8735
AD8735;                    North         East     Units Scale Factor Converg.
AD8735;SPC FL E     -   288,108.540   168,705.958   MT  0.99995326   -0 08 33.9
AD8735;SPC FL E     -   945,236.10    553,496.13   sFT  0.99995326   -0 08 33.9
AD8735;UTM  17      - 2,979,142.220   468,716.635   MT  0.99961208   -0 08 33.9
AD8735
AD8735!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD8735!SPC FL E     -   1.00000214  x   0.99995326  =   0.99995540
AD8735!UTM  17      -   1.00000214  x   0.99961208  =   0.99961422
AD8735
AD8735|---------------------------------------------------------------------|
AD8735| PID    Reference Object                    Distance      Geod. Az  |
AD8735|                                                          dddmmss.s |
AD8735| AJ7253 V 518                               69.330 METERS 31912     |
AD8735|---------------------------------------------------------------------|
AD8735
AD8735                          SUPERSEDED SURVEY CONTROL
AD8735
AD8735  NAD 83(1999)-  26 56 01.68830(N)    081 18 54.44335(W) AD(       ) A
AD8735  ELLIP H (12/09/02)  -13.626  (m)                       GP(       ) 4 1
AD8735  NAD 83(1999)-  26 56 01.68830(N)    081 18 54.44335(W) AD(       ) B
AD8735  ELLIP H (05/31/01)  -13.626  (m)                       GP(       ) 5 1
AD8735  NAD 83(1990)-  26 56 01.68688(N)    081 18 54.44270(W) AD(       ) B
AD8735  ELLIP H (06/02/94)  -13.611  (m)                       GP(       ) 3 1
AD8735  NAVD 88 (12/09/02)   10.90   (m)           35.8    (f) LEVELING    3
AD8735
AD8735.Superseded values are not recommended for survey control.
AD8735.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8735.See file dsdata.txt to determine how the superseded data were derived.
AD8735
AD8735_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK6871779142(NAD 83)
AD8735_MARKER: DH = HORIZONTAL CONTROL DISK
AD8735_SETTING: 37 = SET IN A MASSIVE RETAINING WALL
AD8735_SP_SET: RETAINING WALL
AD8735_STAMPING: FISH 1993
AD8735_MARK LOGO: NGS
AD8735_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8735_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8735_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8735+SATELLITE: SATELLITE OBSERVATIONS - April 25, 2002
AD8735
AD8735  HISTORY     - Date     Condition        Report By
AD8735  HISTORY     - 1993     MONUMENTED       NGS
AD8735  HISTORY     - 20010706 GOOD             FOST
AD8735  HISTORY     - 20020212 GOOD             NGS
AD8735  HISTORY     - 20020425 GOOD             MAPTEC
AD8735
AD8735                          STATION DESCRIPTION
AD8735
AD8735'DESCRIBED BY NATIONAL GEODETIC SURVEY 1993
AD8735'THE STATION IS LOCATED ABOUT 19.3 KM (12.00 MI) WEST OF LAKE
AD8735'OKEECHOBEE, 0.8 KM (0.50 MI) SOUTH OF PALMDALE, AND SET IN A MASSIVE
AD8735'EARTH RETAINING WALL ON THE NORTH SIDE OF FISHEATING CREEK.
AD8735'OWNERSHIP--HIGHWAY RIGHT-OF-WAY.
AD8735'TO REACH THE STATION FROM THE JUNCTION OF STATE ROUTE 29 AND U.S.
AD8735'HIGHWAY 27 JUST SOUTH OF PALMDALE, GO NORTH ON U.S. HIGHWAY 27 1.0 KM
AD8735'(0.60 MI) TO THE BRIDGE OVER FISHEATING CREEK AND THE STATION ON THE
AD8735'RIGHT JUST NORTH OF THE CREEK.
AD8735'LOCATED 18.9 M (62.0 FT) NORTH FROM THE NORTH EDGE OF FISHEATING
AD8735'CREEK, 14.3 M (46.9 FT) EAST FROM THE CENTERLINE OF THE NORTHBOUND
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AD8735'LANES OF HIGHWAY 27, 8.8 M (28.9 FT) EAST FROM THE NORTHEAST CORNER
AD8735'OF THE BRIDGE, 8.1 M (26.6 FT) SOUTHWEST FROM THE WITNESS POST, AND
AD8735'7.1 M (23.3 FT) WEST FROM A BARBED WIRE FENCE CORNER. STATION IS 1.1
AD8735'M (3.6 FT) ABOVE GROUND AND 1.3 M (4.3 FT) BELOW HIGHWAY 27.
AD8735
AD8735                          STATION RECOVERY (2001)
AD8735
AD8735'RECOVERY NOTE BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)
AD8735'THE MONUMENT WAS RECOVERED AS DESCRIBED.
AD8735'
AD8735
AD8735                          STATION RECOVERY (2002)
AD8735
AD8735'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
AD8735'RECOVERED AS DESCRIBED
AD8735'
AD8735'
AD8735
AD8735                          STATION RECOVERY (2002)
AD8735
AD8735'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD8735'RECOVERED AS DESCRIBED.
AD8735'

*** retrieval complete.
Elapsed Time = 00:00:00


AD7895 ************************************************************************
AD7895  CBN          -  This is a Cooperative Base Network Control Station.
AD7895  DESIGNATION  -  FLGPS 57          (CONTROL POINT)
AD7895  PID          -  AD7895
AD7895  STATE/COUNTY-  FL/GLADES
AD7895  USGS QUAD    -  FISHEATING BAY (1971)
AD7895
AD7895                        *CURRENT SURVEY CONTROL
AD7895  ______________________________________________________________________
AD7895* NAD 83(1999)-  26 58 40.50800(N)    081 06 39.55349(W)     ADJUSTED
AD7895* NAVD 88      -         4.570  (meters)      14.99   (feet)  ADJUSTED
AD7895  ______________________________________________________________________
AD7895  X            -     878,911.735 (meters)                    COMP
AD7895  Y            -  -5,619,663.107 (meters)                    COMP
AD7895  Z            -   2,876,026.128 (meters)                    COMP
AD7895  LAPLACE CORR-          -2.63  (seconds)                    DEFLEC99
AD7895  ELLIP HEIGHT-         -20.376 (meters)          (12/09/02) GPS OBS
AD7895  GEOID HEIGHT-         -24.96  (meters)                    GEOID03
AD7895  DYNAMIC HT   -           4.563 (meters)      14.97  (feet)  COMP
AD7895  MODELED GRAV-     979,122.1   (mgal)                      NAVD 88
AD7895
AD7895  HORZ ORDER   -  A
AD7895  VERT ORDER   -  FIRST     CLASS II
AD7895  ELLP ORDER   -  FOURTH    CLASS I
AD7895
AD7895.The horizontal coordinates were established by GPS observations
AD7895.and adjusted by the National Geodetic Survey in December 2002.
AD7895
AD7895.The orthometric height was determined by differential leveling
AD7895.and adjusted by the NATIONAL GEODETIC SURVEY in January 2002.
AD7895
AD7895.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD7895
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AD7895.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7895
AD7895.The ellipsoidal height was determined by GPS observations
AD7895.and is referenced to NAD 83.
AD7895
AD7895.The geoid height was determined by GEOID03.
AD7895
AD7895.The dynamic height is computed by dividing the NAVD 88
AD7895.geopotential number by the normal gravity value computed on the
AD7895.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7895.degrees latitude (g = 980.6199 gals.).
AD7895
AD7895.The modeled gravity was interpolated from observed gravity values.
AD7895
AD7895;   North   East   Units Scale Factor Converg.
AD7895;SPC FL E   -   292,962.375   188,982.483   MT 0.99994267   -0 03 01.3
AD7895;SPC FL E   -   961,160.73   620,020.03   sFT 0.99994267   -0 03 01.3
AD7895;UTM 17   - 2,983,994.399   488,986.242   MT 0.99960150   -0 03 01.3
AD7895
AD7895!   - Elev Factor x Scale Factor =   Combined Factor
AD7895!SPC FL E   -   1.00000320 x   0.99994267 =   0.99994587
AD7895!UTM 17   -   1.00000320 x   0.99960150 =   0.99960470
AD7895
AD7895:   Primary Azimuth Mark   Grid Az
AD7895:SPC FL E   - FLGPS 57 AZ MK   051 50 16.8
AD7895:UTM 17   - FLGPS 57 AZ MK   051 50 16.8
AD7895
AD7895|---|
AD7895| PID   Reference Object   Distance   Geod. Az |
AD7895| dddmmss.s |
AD7895| AD7921 FLGPS 57 AZ MK   APPROX. 0.6 KM 0514715.5 |
AD7895|---|
AD7895
AD7895   SUPERSEDED SURVEY CONTROL
AD7895
AD7895 NAD 83(1999)- 26 58 40.50800(N)   081 06 39.55349(W) AD(   ) B
AD7895 ELLIP H (05/31/01) -20.376 (m)   GP(   ) 5 1
AD7895 NAD 83(1990)- 26 58 40.50672(N)   081 06 39.55283(W) AD(   ) B
AD7895 ELLIP H (09/13/90) -20.363 (m)   GP(   ) 4 1
AD7895 NAVD 88 (03/26/98)   4.566 (m)   14.98   (f) UNKNOWN   2 1
AD7895 NGVD 29 (09/13/90)   5.0   (m)   16.   (f) GPS OBS
AD7895
AD7895.Superseded values are not recommended for survey control.
AD7895.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7895.See file dsdata.txt to determine how the superseded data were derived.
AD7895
AD7895_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK8898683994(NAD 83)
AD7895_MARKER: F = FLANGE-ENCASED ROD
AD7895_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AD7895_SP_SET: STAINLESS STEEL ROD IN SLEEVE
AD7895_STAMPING: FLGPS 57 1989
AD7895_MARK LOGO: NGS
AD7895_PROJECTION: FLUSH
AD7895_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7895_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD7895_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7895+SATELLITE: SATELLITE OBSERVATIONS - February 11, 2003
AD7895_ROD/PIPE-DEPTH: 17.1 meters
AD7895_SLEEVE-DEPTH : 0.9 meters
AD7895
AD7895 HISTORY   - Date   Condition   Report By

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 AD7895  HISTORY     - 1989     MONUMENTED       NGS
 AD7895  HISTORY     - 19920904 GOOD             GEOBAS
 AD7895  HISTORY     - 19950618 GOOD             FLDEP
 AD7895  HISTORY     - 20010612 GOOD             EMCINC
 AD7895  HISTORY     - 2002     GOOD             MAPTEC
 AD7895  HISTORY     - 20020226 GOOD             MAPTEC
 AD7895  HISTORY     - 20030211 GOOD             FLDEP
 AD7895
 AD7895                          STATION DESCRIPTION
 AD7895
 AD7895'DESCRIBED BY NATIONAL GEODETIC SURVEY 1989
 AD7895'THE STATION IS LOCATED ABOUT 16.3 KM (10.15 MI) NORTH OF MOORE HAVEN,
 AD7895'IN THE COMMUNITY OF LAKEPORT, ON THE WEST SIDE OF LAKE OKEECHOBEE, IN
 AD7895'SECTION 22, T 40 S, R 32 E, IN THE RIGHT-OF-WAY OF STATE ROUTE 78.
 AD7895'TO REACH THE STATION FROM THE JUNCTION OF COUNTY ROAD 74 AND STATE
 AD7895'ROUTE 78 IN LAKEPORT, GO NORTHEASTERLY ALONG STATE ROUTE 78 FOR 0.64
 AD7895'KM (0.40 MI) TO THE STATION ON RIGHT.
 AD7895'THE STATION IS RECESSED 10 CM BELOW GROUND.  LOCATED 2.4 M (7.9 FT)
 AD7895'NORTHWEST OF THE NORTH EDGE OF A CANAL, 8.9 M (29.2 FT) SOUTHEAST OF
 AD7895'THE CENTERLINE OF STATE ROUTE 78, 46.6 M (152.9 FT) NORTHEAST OF A
 AD7895'20-INCH CABBAGE PALM TREE NEXT TO A 12-INCH CABBAGE PALM AND 1.83 M
 AD7895'(6.0 FT) NORTHWEST OF A WITNESS POST.
 AD7895'DESCRIBED BY R.L. MALLOY.
 AD7895
 AD7895                          STATION RECOVERY (1992)
 AD7895
 AD7895'RECOVERY NOTE BY GEOBASE CONTROL INCORPORATED 1992
 AD7895'RECOVERED IN GOOD CONDITION.
 AD7895
 AD7895                          STATION RECOVERY (1995)
 AD7895
 AD7895'RECOVERY NOTE BY FL DEPT OF ENV PRO 1995 (VAJ)
 AD7895'RECOVERED AS DESCRIBED.
 AD7895
 AD7895                          STATION RECOVERY (2001)
 AD7895
 AD7895'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
 AD7895'RECOVERED AS DESCRIBED.
 AD7895
 AD7895                          STATION RECOVERY (2002)
 AD7895
 AD7895'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (WJB)
 AD7895'THE MARK WAS RECOVERED BY DESCRIPTION.
 AD7895'
 AD7895
 AD7895                          STATION RECOVERY (2002)
 AD7895
 AD7895'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
 AD7895'RECOVERED AS DESCRIBED
 AD7895'
 AD7895'
 AD7895'
 AD7895
 AD7895                          STATION RECOVERY (2003)
 AD7895
 AD7895'RECOVERY NOTE BY FL DEPT OF ENV PRO 2003 (SS)
 AD7895'RECOVERED IN GOOD CONDITION.
 AD7895'
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AD7903 ***********************************************************************
 AD7903  FBN         -  This is a Federal Base Network Control Station.
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AD7902 ***********************************************************************
 AD7902  CBN         -  This is a Cooperative Base Network Control Station.
 AD7902  DESIGNATION -  FLGPS 67           (CONTROL POINT)
 AD7902  PID         -  AD7902
 AD7902  STATE/COUNTY-  FL/PALM BEACH
 AD7902  USGS QUAD   -  DELTA (1983)
 AD7902
 AD7902                        *CURRENT SURVEY CONTROL
 AD7902  ______________________________________________________________________
 AD7902* NAD 83(2007)-  26 52 19.63862(N)    080 14 43.55835(W)     ADJUSTED
 AD7902* NAVD 88     -         6.374  (meters)      20.91   (feet)  ADJUSTED
 AD7902  ______________________________________________________________________
 AD7902  EPOCH DATE  -        2002.00
 AD7902  X           -     964,602.577 (meters)                     COMP
 AD7902  Y           -  -5,610,976.550 (meters)                     COMP
 AD7902  Z           -   2,865,574.427 (meters)                     COMP
 AD7902  LAPLACE CORR-          -2.97  (seconds)                    DEFLEC99
 AD7902  ELLIP HEIGHT-         -20.159 (meters)          (02/10/07) ADJUSTED
 AD7902  GEOID HEIGHT-         -26.52  (meters)                     GEOID03
 AD7902  DYNAMIC HT  -           6.364 (meters)      20.88  (feet)  COMP
 AD7902
 AD7902  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AD7902  Type    PID    Designation                       North   East  Ellip
 AD7902  ----------------------------------------------------------------------
 AD7902  NETWORK AD7902 FLGPS 67                           0.35   0.33   1.00
 AD7902  ----------------------------------------------------------------------
 AD7902  MODELED GRAV-     979,107.3   (mgal)                     NAVD 88
 AD7902
 AD7902  VERT ORDER  -  FIRST     CLASS II
 AD7902
 AD7902.The horizontal coordinates were established by GPS observations
 AD7902.and adjusted by the National Geodetic Survey in February 2007.
 AD7902
 AD7902.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AD7902.See National Readjustment for more information.
 AD7902.The horizontal coordinates are valid at the epoch date displayed above.
 AD7902.The epoch date for horizontal control is a decimal equivalence
 AD7902.of Year/Month/Day.
 AD7902
 AD7902.The orthometric height was determined by differential leveling
 AD7902.and adjusted in May 2002.
 AD7902
 AD7902.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD7902
 AD7902.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD7902
 AD7902.The ellipsoidal height was determined by GPS observations
 AD7902.and is referenced to NAD 83.
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AD7902
AD7902.The geoid height was determined by GEOID03.
AD7902
AD7902.The dynamic height is computed by dividing the NAVD 88
AD7902.geopotential number by the normal gravity value computed on the
AD7902.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7902.degrees latitude (g = 980.6199 gals.).
AD7902
AD7902.The modeled gravity was interpolated from observed gravity values.
AD7902
AD7902;   North   East   Units Scale Factor Converg.
AD7902;SPC FL E   -   281,458.826   274,975.888   MT 1.00001055   +0 20 27.9
AD7902;SPC FL E   -   923,419.50   902,150.06   sFT 1.00001055   +0 20 27.9
AD7902;UTM 17   - 2,972,494.775   574,950.307   MT 0.99966935   +0 20 27.9
AD7902
AD7902!   - Elev Factor x Scale Factor =   Combined Factor
AD7902!SPC FL E   -   1.00000317 x   1.00001055 =   1.00001372
AD7902!UTM 17   -   1.00000317 x   0.99966935 =   0.99967252
AD7902
AD7902:   Primary Azimuth Mark   Grid Az
AD7902:SPC FL E   - FLGPS 67 AZ MK   126 25 55.5
AD7902:UTM 17   - FLGPS 67 AZ MK   126 25 55.5
AD7902
AD7902|---|
AD7902| PID   Reference Object   Distance   Geod. Az |
AD7902| dddmmss.s |
AD7902| AD7928 FLGPS 67 AZ MK   APPROX. 1.0 KM 1264623.4 |
AD7902| AJ8872 R 547   337.932 METERS 30958 |
AD7902|---|
AD7902
AD7902   SUPERSEDED SURVEY CONTROL
AD7902
AD7902 NAD 83(1999)- 26 52 19.63884(N)   080 14 43.55855(W) AD(   ) A
AD7902 ELLIP H (04/12/01) -20.165 (m)   GP(   ) 4 1
AD7902 NAD 83(1990)- 26 52 19.63741(N)   080 14 43.55789(W) AD(   ) B
AD7902 ELLIP H (09/13/90) -20.151 (m)   GP(   ) 4 1
AD7902 NAVD 88 (12/09/02)   6.37   (m)   20.9   (f) LEVELING   3
AD7902 NGVD 29 (09/13/90)   7.0   (m)   23.   (f) GPS OBS
AD7902
AD7902.Superseded values are not recommended for survey control.
AD7902.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7902.See file dsdata.txt to determine how the superseded data were derived.
AD7902
AD7902_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK7495072495(NAD 83)
AD7902_MARKER: F = FLANGE-ENCASED ROD
AD7902_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AD7902_SP_SET: STAINLESS STEEL ROD IN SLEEVE
AD7902_STAMPING: FLGPS 67 1989
AD7902_MARK LOGO: NGS
AD7902_PROJECTION: FLUSH
AD7902_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7902_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD7902_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7902+SATELLITE: SATELLITE OBSERVATIONS - April 24, 2004
AD7902_ROD/PIPE-DEPTH: 10.8 meters
AD7902_SLEEVE-DEPTH : 0.9 meters
AD7902
AD7902 HISTORY   - Date   Condition   Report By
AD7902 HISTORY   - 1989   MONUMENTED   NGS
AD7902 HISTORY   - 19910810 GOOD   ADRGS
AD7902 HISTORY   - 19920420 GOOD   KEISCH

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AD7902  HISTORY     - 19931215 GOOD             NOS
AD7902  HISTORY     - 19990405 GOOD             FL-099
AD7902  HISTORY     - 20011114 GOOD             MOREKL
AD7902  HISTORY     - 20020214 GOOD             NGS
AD7902  HISTORY     - 20020323 GOOD             USPSQD
AD7902  HISTORY     - 20020419 GOOD             MAPTEC
AD7902  HISTORY     - 20030419 GOOD             USPSQD
AD7902  HISTORY     - 20040301 GOOD             FLDEP
AD7902  HISTORY     - 20040424 GOOD             USPSQD
AD7902
AD7902                          STATION DESCRIPTION
AD7902
AD7902'DESCRIBED BY NATIONAL GEODETIC SURVEY 1989
AD7902'THE STATION IS LOCATED ABOUT 28.97 KM (18.00 MI) SOUTHEAST OF
AD7902'INDIANTOWN, 14.18 KM (8.80 MI) NORTHWEST OF PALM BEACH GARDENS, IN THE
AD7902'MEDIAN OF STATE ROAD 710, ON THE SOUTHEAST EDGE OF A CANAL AND IN
AD7902'SECTION 28, T 41 S, R 41 E.  OWNERSHIP--STATE ROAD RIGHT-OF-WAY.
AD7902'TO REACH THE STATION FROM THE JUNCTION OF STATE ROADS 710 AND 786 NEAR
AD7902'PALM BEACH GARDENS, GO NORTHWEST ON STATE ROAD 710 FOR 5.63 KM
AD7902'(3.50 MI) TO THE CANAL C-18 INTERSECTION AND THE STATION ON LEFT, IN
AD7902'THE HIGHWAY MEDIAN.
AD7902'THE STATION IS RECESSED 11 CM BELOW GROUND.  LOCATED 4.88 M (16.0 FT)
AD7902'SOUTHWEST FROM THE SOUTH CORNER OF HEADWALL OF THE WESTBOUND LANES OF
AD7902'STATE ROAD 710, 4.42 M (14.5 FT) NORTHEAST FROM THE EAST CORNER OF
AD7902'HEADWALL OF THE EASTBOUND LANES OF STATE ROAD 710, 1.04 M (3.4 FT)
AD7902'SOUTHEAST FROM THE CONCRETE EMBANKMENT OF CANAL AND 0.91 M (3.0 FT)
AD7902'SOUTHEAST FROM A CARSONITE WITNESS POST.  NOTE--ACCESS TO DATUM POINT
AD7902'IS HAD THROUGH A 5-INCH LOGO CAP.
AD7902'DESCRIBED BY R.L. MALLOY.
AD7902
AD7902                          STATION RECOVERY (1991)
AD7902
AD7902'RECOVERY NOTE BY ADR GEODETIC SERVICES 1991
AD7902'RECOVERED IN GOOD CONDITION.
AD7902
AD7902                          STATION RECOVERY (1992)
AD7902
AD7902'RECOVERY NOTE BY KEITH AND SCHNARS - LAKELAND 1992
AD7902'RECOVERED IN GOOD CONDITION.
AD7902
AD7902                          STATION RECOVERY (1993)
AD7902
AD7902'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1993 (RAH)
AD7902'RECOVERED AS DESCRIBED.
AD7902
AD7902                          STATION RECOVERY (1999)
AD7902
AD7902'RECOVERY NOTE BY PALM BEACH COUNTY FLORIDA 1999
AD7902'RECOVERED AS DESCRIBED.
AD7902
AD7902                          STATION RECOVERY (2001)
AD7902
AD7902'RECOVERY NOTE BY MORGAN AND EKLUND INC 2001 (PDW)
AD7902'RECOVERED AS DESCRIBED
AD7902'
AD7902'
AD7902
AD7902                          STATION RECOVERY (2002)
AD7902
AD7902'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
AD7902'RECOVERED AS DESCRIBED
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 AD7902'
 AD7902'
 AD7902'
 AD7902
 AD7902                          STATION RECOVERY (2002)
 AD7902
 AD7902'RECOVERY NOTE BY US POWER SQUADRON 2002 (AEP)
 AD7902'
 AD7902'
 AD7902'
 AD7902
 AD7902                          STATION RECOVERY (2002)
 AD7902
 AD7902'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CP)
 AD7902'RECOVERED AS DESCRIBED
 AD7902'
 AD7902'STATION RECOVERY (2002)
 AD7902'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
 AD7902'RECOVERED AS DESCRIBED.
 AD7902'
 AD7902
 AD7902                          STATION RECOVERY (2003)
 AD7902
 AD7902'RECOVERY NOTE BY US POWER SQUADRON 2003 (AEP)
 AD7902'RECOVERED IN GOOD CONDITION.
 AD7902
 AD7902                          STATION RECOVERY (2004)
 AD7902
 AD7902'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
 AD7902'RECOVERED IN GOOD CONDITION.
 AD7902
 AD7902                          STATION RECOVERY (2004)
 AD7902
 AD7902'RECOVERY NOTE BY US POWER SQUADRON 2004 (AEP)
 AD7902'RECOVERED IN GOOD CONDITION.

 *** retrieval complete.
 Elapsed Time = 00:00:01


AD7903  DESIGNATION -  FLGPS 69        (CONTROL POINT)
 AD7903  PID         -  AD7903
 AD7903  STATE/COUNTY-  FL/PALM BEACH
 AD7903  USGS QUAD   -  WEST OF BIG LAKE (1990)
 AD7903
 AD7903                        *CURRENT SURVEY CONTROL
 AD7903  ______________________________________________________________________
 AD7903* NAD 83(1999)-  26 24 13.26862(N)    080 29 30.41035(W)     ADJUSTED
 AD7903* NAVD 88     -         5.799  (meters)      19.03   (feet)  ADJUSTED
 AD7903  ______________________________________________________________________
 AD7903  X           -     944,312.981 (meters)                     COMP
 AD7903  Y           -  -5,638,023.192 (meters)                     COMP
 AD7903  Z           -   2,819,182.350 (meters)                     COMP
 AD7903  LAPLACE CORR-          -1.25  (seconds)                    DEFLEC99
 AD7903  ELLIP HEIGHT-         -19.260 (meters)          (04/12/01) GPS OBS
 AD7903  GEOID HEIGHT-         -25.03  (meters)                     GEOID03
 AD7903  DYNAMIC HT  -           5.790 (meters)      19.00  (feet)  COMP
 AD7903  MODELED GRAV-     979,081.8   (mgal)                       NAVD 88
 AD7903
 AD7903  HORZ ORDER  -  A
 AD7903  VERT ORDER  -  FIRST     CLASS II
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AD7903 ELLP ORDER - FOURTH   CLASS I
AD7903
AD7903.The horizontal coordinates were established by GPS observations
AD7903.and adjusted by the National Geodetic Survey in April 2001.
AD7903
AD7903.The orthometric height was determined by differential leveling
AD7903.and adjusted by the NATIONAL GEODETIC SURVEY in March 1998.
AD7903.WARNING-GPS observations at this control monument resulted in a GPS
AD7903.derived orthometric height which differed from the leveled height by
AD7903.more than one decimeter (0.1 meter).
AD7903.WARNING-Repeat measurements at this control monument indicate possible
AD7903.vertical movement.
AD7903
AD7903.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD7903
AD7903.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7903
AD7903.The ellipsoidal height was determined by GPS observations
AD7903.and is referenced to NAD 83.
AD7903
AD7903.The geoid height was determined by GEOID03.
AD7903
AD7903.The dynamic height is computed by dividing the NAVD 88
AD7903.geopotential number by the normal gravity value computed on the
AD7903.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7903.degrees latitude (g = 980.6199 gals.).
AD7903
AD7903.The modeled gravity was interpolated from observed gravity values.
AD7903
AD7903;   North   East   Units Scale Factor Converg.
AD7903;SPC FL E   -   229,437.002   250,704.019   MT 0.99997291   +0 13 33.6
AD7903;SPC FL E   -   752,744.56   822,518.10   sFT 0.99997291   +0 13 33.6
AD7903;UTM 17   - 2,920,490.701   550,686.719   MT 0.99963172   +0 13 33.6
AD7903
AD7903!   - Elev Factor x Scale Factor =   Combined Factor
AD7903!SPC FL E   -   1.00000303 x   0.99997291 =   0.99997594
AD7903!UTM 17   -   1.00000303 x   0.99963172 =   0.99963474
AD7903
AD7903:   Primary Azimuth Mark   Grid Az
AD7903:SPC FL E   - FLGPS 69 AZ MK   210 35 37.3
AD7903:UTM 17   - FLGPS 69 AZ MK   210 35 37.3
AD7903
AD7903|---|
AD7903| PID   Reference Object   Distance   Geod. Az |
AD7903| dddmmss.s |
AD7903| AD7929 FLGPS 69 AZ MK   APPROX. 0.8 KM 2104910.9 |
AD7903|---|
AD7903
AD7903   SUPERSEDED SURVEY CONTROL
AD7903
AD7903 NAD 83(1990)- 26 24 13.26696(N)   080 29 30.40965(W) AD(   ) B
AD7903 ELLIP H (09/13/90) -19.245 (m)   GP(   ) 4 1
AD7903 NAVD 88 (09/04/92)   5.790 (m)   19.00   (f) UNKNOWN   1 2
AD7903 NGVD 29 (09/01/92)   6.236 (m)   20.46   (f) ADJUSTED   1 2
AD7903
AD7903.Superseded values are not recommended for survey control.
AD7903.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7903.See file dsdata.txt to determine how the superseded data were derived.
AD7903
AD7903_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK5068720491(NAD 83)
AD7903_MARKER: F = FLANGE-ENCASED ROD

AD7903_SETTING: 15 = METAL ROD DRIVEN INTO GROUND. SEE TEXT FOR ADDITIONAL
AD7903+WITH SETTING: INFORMATION.
AD7903_SP_SET: STAINLESS STEEL ROD IN SLEEVE
AD7903_STAMPING: FLGPS 69 1989
AD7903_MARK LOGO: NGS
AD7903_PROJECTION: FLUSH
AD7903_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AD7903_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
AD7903_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7903+SATELLITE: SATELLITE OBSERVATIONS - September 06, 2002
AD7903_ROD/PIPE-DEPTH: 4.3 meters
AD7903_SLEEVE-DEPTH : 0.91 meters
AD7903
AD7903 HISTORY   - Date   Condition   Report By
AD7903 HISTORY   - 1989   MONUMENTED   NGS
AD7903 HISTORY   - 19920317 GOOD   NGS
AD7903 HISTORY   - 19920601 GOOD   ADRGS
AD7903 HISTORY   - 19951221 GOOD   NGS
AD7903 HISTORY   - 19970914 GOOD   FLDEP
AD7903 HISTORY   - 19990405 GOOD   FL-099
AD7903 HISTORY   - 20020906 GOOD   FLDEP
AD7903
AD7903   STATION DESCRIPTION
AD7903
AD7903'DESCRIBED BY NATIONAL GEODETIC SURVEY 1989
AD7903'THE STATION IS LOCATED ABOUT 41.84 KM (26.00 MI) WEST OF BOCA RATON,
AD7903'29.29 KM (18.20 MI) NORTH OF ANDYTOWN, IN T 46 S, R 38 E, AT THE SOUTH
AD7903'FLORIDA WATER MANAGEMENT DISTRICT PUMP STATION PROPERTY S-7.
AD7903'OWNERSHIP--SOUTH FLORIDA WATER MANAGEMENT DISTRICT. NOTE, NOTIFY PUMP
AD7903'STATION PERSONNEL BEFORE VISITING STATION, KEY TO LOCKED GATE
AD7903'REQUIRED.
AD7903'TO REACH THE STATION FROM THE INTERSECTION OF INTERSTATE HIGHWAY 75,
AD7903'STATE ROAD 84 (ALLIGATOR ALLEY) AND U.S. HIGHWAY 27 IN ANDYTOWN, GO
AD7903'NORTH FOR 25.27 KM (15.70 MI) ON HIGHWAY 27 TO THE PALM BEACH-BROWARD
AD7903'COUNTY LINE. CONTINUE NORTH FOR 0.16 KM (0.10 MI) ON HIGHWAY 27 TO
AD7903'THE ENTRANCE TO SFLWMD PUMP STATION ON RIGHT. TURN RIGHT AND GO
AD7903'THROUGH GATE FOR 0.24 KM (0.15 MI) TO THE TOP OF LEVEE. TURN LEFT AND
AD7903'GO NORTHEAST FOR 7.72 KM (4.80 MI) ON THE LEVEE TO A TURNAROUND AREA.
AD7903'CONTINUE NORTHEAST FOR 0.80 KM (0.50 MI) ON THE LEVEE TO A TURNAROUND
AD7903'AREA AND THE STATION ON LEFT.
AD7903'THE STATION IS RECESSED 13 CM BELOW GROUND. LOCATED 6.10 M (20.0 FT)
AD7903'NORTHWEST FROM THE APPROXIMATE CENTER OF THE LEVEE ROAD, 1.83 M
AD7903'(6.0 FT) SOUTHEAST FROM THE WEST SIDE OF THE TURNAROUND AND 0.85 M
AD7903'(2.8 FT) SOUTHEAST FROM A CARSONITE WITNESS POST. NOTE--ACCESS TO
AD7903'DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
AD7903'DESCRIBED BY R.L. MALLOY.
AD7903
AD7903   STATION RECOVERY (1992)
AD7903
AD7903'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992
AD7903'23.7 KM (14.70 MI) NORTHERLY ALONG U.S. HIGHWAY 27 FROM THE JUNCTION
AD7903'OF INTERSTATE HIGHWAY 75 (ALLIGATOR ALLEY), THENCE 0.2 KM (0.10 MI)
AD7903'EASTERLY PASSING PUMPING STATION NUMBER 7 TO THE TOP OF LEVEE NUMBER
AD7903'6, THENCE 8.5 KM (5.30 MI) EASTERLY ALONG A LEVEE ROAD, 5.9 M (19.4
AD7903'FT) NORTHWEST OF AND LEVEL WITH THE CENTER OF THE ROAD, AND 0.9 M
AD7903'(3.0 FT) SOUTHEAST OF A WITNESS POST. NOTE--ACCESS TO THE DATUM
AD7903'POINT IS THROUGH A 5-INCH LOGO CAP.
AD7903
AD7903   STATION RECOVERY (1992)
AD7903
AD7903'RECOVERY NOTE BY ADR GEODETIC SERVICES 1992

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 AD7903'RECOVERED IN GOOD CONDITION.
 AD7903
 AD7903                          STATION RECOVERY (1995)
 AD7903
 AD7903'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1995 (CFS)
 AD7903'THE STATION IS LOCATED ABOUT 26.0 MI (41.8 KM) WEST OF BOCA RATON,
 AD7903'26.0 MI (41.8 KM) SOUTH-SOUTHEAST OF STATE ROUTE 80 AND U.S. HIGHWAY
 AD7903'27 JUNCTION, 15.0 MI (24.1 KM) NORTH-NORTHWEST OF INTERSTATE HIGHWAY
 AD7903'75 AND U.S. HIGHWAY 27 JUNCTION, IN T 46 S, R 38 E, AT THE SOUTH
 AD7903'FLORIDA WATER DISTRICT PUMP STATION PROPERTY S-7.  OWNERSHIP -- SOUTH
 AD7903'FLORIDA WATER MANAGEMENT DISTRICT.  NOTE -- CONTACT PUMP STATION
 AD7903'PERSONNEL BEFORE VISITING STATION.  KEY TO LOCKED GATE REQUIRED TO
 AD7903'ACCESS STATION.  PHONE 407-996-4512 DURING OFFICE HOURS 7.00 AM TO
 AD7903'3.30 PM.  TO REACH THE STATION FROM THE INTERSECTION OF STATE ROUTE 80
 AD7903'AND U.S. HIGHWAY 27 IN SOUTH BAY, GO SOUTH ON HIGHWAY 27 FOR 26.2 MI
 AD7903'(42.2 KM) TO THE ENTRANCE OF THE SFLWMD PUMP STATION S-7 ON LEFT. TURN
 AD7903'LEFT, EAST, AND GO THROUGH GATE FOR 0.15 MI (0.24 KM) TO TOP OF LEVEE.
 AD7903'TURN LEFT, AND GO NORTHEAST ON LEVEE ROAD FOR 4.80 MI (7.72 KM) TO A
 AD7903'TURN AROUND AREA WITH AZIMUTH MARK ON LEFT.  CONTINUE NORTHEAST FOR
 AD7903'0.5 MI (0.8 KM) TO A TURN AROUND AREA WITH STATION ON LEFT.  THE
 AD7903'STATION IS RECESSED 13 CM BELOW GROUND.  LOCATED 55.0 FT (16.8 M)
 AD7903'NORTH OF SOUTH CORNER OF TURN AROUND, 18.75 FT (5.72 M) NORTHWEST FROM
 AD7903'THE APPROXIMATE CENTER OF THE LEVEE ROADWAY, AND 2.8 FT (0.9 M)
 AD7903'SOUTHEAST OF A WITNESS POST.  NOTE -- ACCESS TO DATUM POINT IS THROUGH
 AD7903'A 5-INCH LOGO CAP.  RECOVERED IN GOOD CONDITION.
 AD7903
 AD7903                          STATION RECOVERY (1997)
 AD7903
 AD7903'RECOVERY NOTE BY FL DEPT OF ENV PRO 1997 (JLM)
 AD7903'RECOVERED AS DESCRIBED.
 AD7903
 AD7903                          STATION RECOVERY (1999)
 AD7903
 AD7903'RECOVERY NOTE BY PALM BEACH COUNTY FLORIDA 1999
 AD7903'RECOVERED AS DESCRIBED.
 AD7903
 AD7903                          STATION RECOVERY (2002)
 AD7903
 AD7903'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)
 AD7903'RECOVERED IN GOOD CONDITION, NOT LEVELED TO THIS DATE.
 AD7903'
 AD7903'
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AJ3515 ***********************************************************************
 AJ3515  DESIGNATION -  G 489         (CONTROL POINT)
 AJ3515  PID         -  AJ3515
 AJ3515  STATE/COUNTY-  FL/PALM BEACH
 AJ3515  USGS QUAD   -  PAHOKEE (1970)
 AJ3515
 AJ3515                        *CURRENT SURVEY CONTROL
 AJ3515  ______________________________________________________________________
 AJ3515* NAD 83(1999)-  26 48 48.07642(N)    080 41 13.99777(W)     ADJUSTED
 AJ3515* NAVD 88     -         6.900  (meters)      22.64   (feet)  ADJUSTED
 AJ3515  ______________________________________________________________________
 AJ3515  X           -     921,785.995 (meters)                     COMP
 AJ3515  Y           -  -5,621,150.359 (meters)                     COMP
 AJ3515  Z           -   2,859,765.355 (meters)                     COMP
 AJ3515  LAPLACE CORR-          -1.77  (seconds)                    DEFLEC99
 AJ3515  ELLIP HEIGHT-         -18.456 (meters)          (12/12/02) GPS OBS
 AJ3515  GEOID HEIGHT-         -25.34  (meters)                     GEOID03
 AJ3515  DYNAMIC HT  -           6.889 (meters)      22.60  (feet)  COMP
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AJ3515 MODELED GRAV-   979,115.5   (mgal)   NAVD 88
AJ3515
AJ3515 HORZ ORDER - FIRST
AJ3515 VERT ORDER - FIRST   CLASS II
AJ3515 ELLP ORDER - FOURTH   CLASS I
AJ3515
AJ3515.The horizontal coordinates were established by GPS observations
AJ3515.and adjusted by the National Geodetic Survey in December 2002.
AJ3515
AJ3515.The orthometric height was determined by differential leveling
AJ3515.and adjusted by the NATIONAL GEODETIC SURVEY in September 2001.
AJ3515
AJ3515.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ3515
AJ3515.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ3515
AJ3515.The ellipsoidal height was determined by GPS observations
AJ3515.and is referenced to NAD 83.
AJ3515
AJ3515.The geoid height was determined by GEOID03.
AJ3515
AJ3515.The dynamic height is computed by dividing the NAVD 88
AJ3515.geopotential number by the normal gravity value computed on the
AJ3515.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ3515.degrees latitude (g = 980.6199 gals.).
AJ3515
AJ3515.The modeled gravity was interpolated from observed gravity values.
AJ3515
AJ3515;   North   East   Units Scale Factor Converg.
AJ3515;SPC FL E   -   274,762.855   231,094.138   MT 0.99995311   +0 08 27.9
AJ3515;SPC FL E   -   901,451.13   758,181.35   sFT 0.99995311   +0 08 27.9
AJ3515;UTM 17   - 2,965,801.088   531,083.529   MT 0.99961193   +0 08 27.9
AJ3515
AJ3515!   - Elev Factor x Scale Factor =   Combined Factor
AJ3515!SPC FL E   -   1.00000290 x   0.99995311 =   0.99995601
AJ3515!UTM 17   -   1.00000290 x   0.99961193 =   0.99961483
AJ3515
AJ3515   SUPERSEDED SURVEY CONTROL
AJ3515
AJ3515 NAVD 88 (12/12/02)   6.90   (m)   22.6   (f) LEVELING   3
AJ3515
AJ3515.Superseded values are not recommended for survey control.
AJ3515.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ3515.See file dsdata.txt to determine how the superseded data were derived.
AJ3515
AJ3515_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK3108465801(NAD 83)
AJ3515_MARKER: F = FLANGE-ENCASED ROD
AJ3515_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ3515_STAMPING: G 489 2000
AJ3515_MARK LOGO: NGS
AJ3515_PROJECTION: RECESSED 8 CENTIMETERS
AJ3515_MAGNETIC: I = MARKER IS A STEEL ROD
AJ3515_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ3515_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ3515+SATELLITE: SATELLITE OBSERVATIONS - May 17, 2002
AJ3515_ROD/PIPE-DEPTH: 6.8 meters
AJ3515
AJ3515 HISTORY   - Date   Condition   Report By
AJ3515 HISTORY   - 2000   MONUMENTED   FLDEP
AJ3515 HISTORY   - 20011116 GOOD   FLDEP
AJ3515 HISTORY   - 20020517 GOOD   MAPTEC

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 AJ3515
 AJ3515                          STATION DESCRIPTION
 AJ3515
 AJ3515'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
 AJ3515'THE MARK IS ABOUT 11.65 MI (18.75 KM) NORTH OF SOUTH BAY, 6.85 MI
 AJ3515'(11.02 KM) SOUTHWEST OF CANAL POINT, 2.0 MI (3.2 KM) SOUTH-SOUTHWEST
 AJ3515'OF PAHOKEE, ON THE EAST SIDE OF LAKE OKEECHOBEE, IN SECTION 13,
 AJ3515'TOWNSHIP 42 SOUTH, RANGE 36 EAST. TO REACH THE MARK FROM THE JUNCTION
 AJ3515'OF U.S. HIGHWAY 441, 98, COUNTY ROAD 715 AND COUNTY ROAD 700 IN CANAL
 AJ3515'POINT, GO NORTHERLY ON U.S. HIGHWAY 441 AND 98 FOR 0.2 MI (0.3 KM) TO
 AJ3515'THE JUNCTION OF A PAVED ROAD ON THE LEFT, TURN LEFT ON THE PAVED ROAD
 AJ3515'AND GO WEST FOR 0.05 MI (0.08 KM) CROSSING OVER THE RAILROAD TRACKS TO
 AJ3515'THE TOP OF A LEVEE ROAD, TURN LEFT ON THE LEVEE ROAD AND GO SOUTH FOR
 AJ3515'0.1 MI (0.2 KM) TO A LOCKED GATE AND WATER STRUCTURE S 352, CONTINUE
 AJ3515'SOUTH ON THE LEVEE ROAD FOR 3.1 MI (5.0 KM) TO A LOCKED GATE ACROSS
 AJ3515'THE LEVEL ROAD, CONTINUE SOUTH ON THE LEVEE ROAD FOR 0.35 MI (0.56 KM)
 AJ3515'TO THE JUNCTION OF A PAVED LEVEE ENTRANCE (LEADING TO U.S. HIGHWAY
 AJ3515'441), CONTINUE SOUTH ON THE LEVEE ROAD FOR 0.2 MI (0.3 KM) TO A LOCKED
 AJ3515'GATE ACROSS THE LEVEE ROAD, CONTINUE SOUTH ON THE LEVEE ROAD FOR 0.5
 AJ3515'MI (0.8 KM) TO A LOCKED GATE, CONTINUE SOUTH ON THE LEVEE ROAD FOR 0.8
 AJ3515'MI (1.3 KM) TO THE MARK ON THE RIGHT, A STAINLESS STEEL ROD DRIVEN TO
 AJ3515'REFUSAL AT A DEPTH OF 22.2 FT (6.8 M) WITH A NGS LOGO CAP PROJECTING
 AJ3515'0.3 FT (9.1 CM) ABOVE THE LEVEL OF THE GROUND AND 20.0 FT (6.1 M)
 AJ3515'BELOW THE LEVEL OF THE LEVEE ROAD, THE DATUM POINT IS RECESSED 0.5 FT
 AJ3515'(15.2 CM) BELOW THE LEVEL OF THE NGS LOGO CAP. LOCATED 115.5 FT (35.2
 AJ3515'M) NORTHWEST OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 2.5 FT
 AJ3515'(0.8 M) SOUTHWEST OF A 2-INCH PVC PIPE, 2.2 FT (0.7 M) NORTHEAST OF A
 AJ3515'2-INCH PVC PIPE AND 0.6 FT (18.3 CM) SOUTHEAST OF A CARSONITE WITNESS
 AJ3515'POST. NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO
 AJ3515'CAP.
 AJ3515
 AJ3515                          STATION RECOVERY (2001)
 AJ3515
 AJ3515'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
 AJ3515'RECOVERED AS DESCRIBED.
 AJ3515'
 AJ3515
 AJ3515                          STATION RECOVERY (2002)
 AJ3515
 AJ3515'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AJ3515'STATION RECOVERY (2002)
 AJ3515'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
 AJ3515'RECOVERED AS DESCRIBED.
 AJ3515'
 AJ3515'
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AJ8865 ***********************************************************************
 AJ8865  DESIGNATION -  H 547         (CONTROL POINT)
 AJ8865  PID         -  AJ8865
 AJ8865  STATE/COUNTY-  FL/PALM BEACH
 AJ8865  USGS QUAD   -  WEST OF ROOD (1994)
 AJ8865
 AJ8865                        *CURRENT SURVEY CONTROL
 AJ8865  ______________________________________________________________________
 AJ8865* NAD 83(1999)-  26 56 35.13744(N)    080 21 05.34981(W)     ADJUSTED
 AJ8865* NAVD 88     -         7.545  (meters)      24.75   (feet)  ADJUSTED
 AJ8865  ______________________________________________________________________
 AJ8865  X           -     953,618.847 (meters)                     COMP
 AJ8865  Y           -  -5,609,244.958 (meters)                     COMP
 AJ8865  Z           -   2,872,587.401 (meters)                     COMP
 AJ8865  LAPLACE CORR-          -2.21  (seconds)                    DEFLEC99
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AJ8865  ELLIP HEIGHT-         -19.006 (meters)          (12/12/02) GPS OBS
AJ8865  GEOID HEIGHT-         -26.55  (meters)                     GEOID03
AJ8865  DYNAMIC HT  -           7.534 (meters)      24.72  (feet)  COMP
AJ8865  MODELED GRAV-     979,102.5   (mgal)                       NAVD 88
AJ8865
AJ8865  HORZ ORDER  -  FIRST
AJ8865  VERT ORDER  -  FIRST     CLASS II
AJ8865  ELLP ORDER  -  THIRD     CLASS I
AJ8865
AJ8865.The horizontal coordinates were established by GPS observations
AJ8865.and adjusted by the National Geodetic Survey in December 2002.
AJ8865
AJ8865.The orthometric height was determined by differential leveling
AJ8865.and adjusted by the NATIONAL GEODETIC SURVEY in May 2002.
AJ8865
AJ8865.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ8865
AJ8865.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ8865
AJ8865.The ellipsoidal height was determined by GPS observations
AJ8865.and is referenced to NAD 83.
AJ8865
AJ8865.The geoid height was determined by GEOID03.
AJ8865
AJ8865.The dynamic height is computed by dividing the NAVD 88
AJ8865.geopotential number by the normal gravity value computed on the
AJ8865.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ8865.degrees latitude (g = 980.6199 gals.).
AJ8865
AJ8865.The modeled gravity was interpolated from observed gravity values.
AJ8865
AJ8865;                    North         East     Units Scale Factor Converg.
AJ8865;SPC FL E     -   289,264.171   264,397.577   MT  0.99999235   +0 17 37.9
AJ8865;SPC FL E     -   949,027.53    867,444.38   sFT  0.99999235   +0 17 37.9
AJ8865;UTM  17      - 2,980,297.457   564,375.605   MT  0.99965116   +0 17 37.9
AJ8865
AJ8865!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ8865!SPC FL E     -   1.00000299  x   0.99999235  =   0.99999534
AJ8865!UTM  17      -   1.00000299  x   0.99965116  =   0.99965414
AJ8865
AJ8865                          SUPERSEDED SURVEY CONTROL
AJ8865
AJ8865  NAVD 88 (12/12/02)    7.54   (m)           24.7    (f) LEVELING    3
AJ8865
AJ8865.Superseded values are not recommended for survey control.
AJ8865.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ8865.See file dsdata.txt to determine how the superseded data were derived.
AJ8865
AJ8865_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6437680297(NAD 83)
AJ8865_MARKER: F = FLANGE-ENCASED ROD
AJ8865_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ8865_STAMPING: H 547 CERP 2001
AJ8865_MARK LOGO: NONE
AJ8865_PROJECTION: RECESSED 10 CENTIMETERS
AJ8865_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ8865_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ8865_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8865+SATELLITE: SATELLITE OBSERVATIONS - December 27, 2003
AJ8865_ROD/PIPE-DEPTH: 13.4 meters
AJ8865
AJ8865  HISTORY     - Date     Condition        Report By
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AJ8865  HISTORY     - 20011029 MONUMENTED       MOREKL
AJ8865  HISTORY     - 20020419 GOOD             MAPTEC
AJ8865  HISTORY     - 20031227 GOOD             USPSQD
AJ8865
AJ8865                          STATION DESCRIPTION
AJ8865
AJ8865'DESCRIBED BY MORGAN AND EKLUND INC 2001 (MAB)
AJ8865'THE STATION IS LOCATED ABOUT 42.9 KM (26.6 MILES) NORTHEAST OF BELLE
AJ8865'GLADE, ABOUT 25.6 KM
AJ8865'(15.9 MILES) WEST OF JUPITER, ABOUT 15.8 KM (9.8 MILES) SOUTHEAST OF
AJ8865'INDIANTOWN IN SECTION 4,
AJ8865'TOWNSHIP 41 SOUTH, RANGE 40 EAST.
AJ8865'
AJ8865'OWNERSHIP  PALM BEACH COUNTY (STATE ROAD 710 RIGHT OF WAY)
AJ8865'
AJ8865'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 76 AND STATE
AJ8865'ROAD 710 ON THE
AJ8865'BRIDGE OVER STATE ROAD 76 AND THE ST. LUCIE CANAL, GO EAST ON STATE
AJ8865'ROAD 710 FOR 12.9 KM
AJ8865'(8.0 MILES) TO JUNCTION OF STATE ROAD 710 AND STATE ROAD 706 AND THE
AJ8865'MARK ON THE LEFT.
AJ8865'
AJ8865'THE MARK IS 16.5 METERS (54.2 FEET) SOUTHWEST OF A WOOD UTILITY POLE,
AJ8865'9.5 METERS (31.1 FEET)
AJ8865'WEST OF THE WEST END OF A CONCRETE HEADWALL, 9.7 METERS (31.8 FEET)
AJ8865'WEST OF A CARSONITE
AJ8865'WITNESS POST AND 3.1 METERS (10.2 FEET) NORTHEAST OF THE EDGE OF
AJ8865'PAVEMENT OF STATE ROAD
AJ8865'710.  ACCESS TO THE DATUM POINT (TOP OF A STAINLESS STEEL ROD) IS HAD
AJ8865'THROUGH A 5 INCH
AJ8865'LOGO CAP.
AJ8865'
AJ8865'NOTE  A MAGNET WAS PLACED INSIDE THE PVC ENCASEMENT.
AJ8865'
AJ8865'
AJ8865
AJ8865                          STATION RECOVERY (2002)
AJ8865
AJ8865'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ8865'THE STATION IS LOCATED ABOUT 42.9 KM (26.6 MILES) NORTHEAST OF BELLE
AJ8865'GLADE, ABOUT 25.6 KM
AJ8865'(15.9 MILES) WEST OF JUPITER, ABOUT 15.8 KM (9.8 MILES) SOUTHEAST OF
AJ8865'INDIANTOWN IN SECTION 4,
AJ8865'TOWNSHIP 41 SOUTH, RANGE 40 EAST.
AJ8865'
AJ8865'OWNERSHIP  PALM BEACH COUNTY (STATE ROAD 710 RIGHT OF WAY)
AJ8865'
AJ8865'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 76 AND STATE
AJ8865'ROAD 710 ON THE
AJ8865'BRIDGE OVER STATE ROAD 76 AND THE ST. LUCIE CANAL, GO EAST ON STATE
AJ8865'ROAD 710 FOR 12.9 KM
AJ8865'(8.0 MILES) TO JUNCTION OF STATE ROAD 710 AND STATE ROAD 706 AND THE
AJ8865'MARK ON THE LEFT.
AJ8865'
AJ8865'THE MARK IS 16.5 METERS (54.2 FEET) SOUTHWEST OF A WOOD UTILITY POLE,
AJ8865'9.5 METERS (31.1 FEET)
AJ8865'WEST OF THE WEST END OF A CONCRETE HEADWALL, 9.7 METERS (31.8 FEET)
AJ8865'WEST OF A CARSONITE
AJ8865'WITNESS POST AND 3.1 METERS (10.2 FEET) NORTHEAST OF THE EDGE OF
AJ8865'PAVEMENT OF STATE ROAD
AJ8865'710.  ACCESS TO THE DATUM POINT (TOP OF A STAINLESS STEEL ROD) IS HAD
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 AJ8865'THROUGH A 5 INCH
 AJ8865'LOGO CAP.
 AJ8865'
 AJ8865'NOTE  A MAGNET WAS PLACED INSIDE THE PVC ENCASEMENT.
 AJ8865'
 AJ8865'STATION RECOVERY (2002)
 AJ8865'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP) .
 AJ8865'RECOVERED AS DESCRIBED.
 AJ8865'
 AJ8865'
 AJ8865
 AJ8865                          STATION RECOVERY (2003)
 AJ8865
 AJ8865'RECOVERY NOTE BY US POWER SQUADRON 2003 (AEP)
 AJ8865'RECOVERED IN GOOD CONDITION.
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AD8199 ***********************************************************************
 AD8199  DESIGNATION -  K 413         (CONTROL POINT)
 AD8199  PID         -  AD8199
 AD8199  STATE/COUNTY-  FL/PALM BEACH
 AD8199  USGS QUAD   -  LOXAHATCHEE (1984)
 AD8199
 AD8199                         *CURRENT SURVEY CONTROL
 AD8199  ______________________________________________________________________
 AD8199* NAD 83(1999)-  26 41 04.28231(N)    080 19 51.83212(W)     ADJUSTED
 AD8199* NAVD 88     -         4.583  (meters)      15.04   (feet)  ADJUSTED
 AD8199  ______________________________________________________________________
 AD8199  X           -     957,788.339 (meters)                     COMP
 AD8199  Y           -  -5,621,642.972 (meters)                     COMP
 AD8199  Z           -   2,847,017.274 (meters)                     COMP
 AD8199  LAPLACE CORR-          -2.10  (seconds)                    DEFLEC99
 AD8199  ELLIP HEIGHT-         -21.072 (meters)          (12/09/02) GPS OBS
 AD8199  GEOID HEIGHT-         -25.65  (meters)                     GEOID03
 AD8199  DYNAMIC HT  -           4.576 (meters)      15.01  (feet)  COMP
 AD8199  MODELED GRAV-     979,110.8   (mgal)                       NAVD 88
 AD8199
 AD8199  HORZ ORDER  -  A
 AD8199  VERT ORDER  -  FIRST     CLASS II
 AD8199  ELLP ORDER  -  FOURTH    CLASS I
 AD8199
 AD8199.The horizontal coordinates were established by GPS observations
 AD8199.and adjusted by the National Geodetic Survey in December 2002.
 AD8199
 AD8199.The orthometric height was determined by differential leveling
 AD8199.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
 AD8199
 AD8199.Photographs are available for this station.
 AD8199
 AD8199.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD8199
 AD8199.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD8199
 AD8199.The ellipsoidal height was determined by GPS observations
 AD8199.and is referenced to NAD 83.
 AD8199
 AD8199.The geoid height was determined by GEOID03.
 AD8199
 AD8199.The dynamic height is computed by dividing the NAVD 88
 AD8199.geopotential number by the normal gravity value computed on the
 AD8199.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD8199.degrees latitude (g = 980.6199 gals.).
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AD8199
AD8199.The modeled gravity was interpolated from observed gravity values.
AD8199
AD8199;                    North         East     Units Scale Factor Converg.
AD8199;SPC FL E     -   260,625.448   266,576.389   MT  0.99999588   +0 18 01.5
AD8199;SPC FL E     -   855,068.66    874,592.70   sFT  0.99999588   +0 18 01.5
AD8199;UTM  17      - 2,951,668.505   566,553.673   MT  0.99965468   +0 18 01.5
AD8199
AD8199!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD8199!SPC FL E     -   1.00000331  x   0.99999588  =   0.99999919
AD8199!UTM  17      -   1.00000331  x   0.99965468  =   0.99965799
AD8199
AD8199                          SUPERSEDED SURVEY CONTROL
AD8199
AD8199  NAVD 88 (12/09/02)    4.58   (m)           15.0    (f) LEVELING    3
AD8199  NGVD 29 (09/01/92)    5.035  (m)           16.52   (f) ADJUSTED    1 2
AD8199
AD8199.Superseded values are not recommended for survey control.
AD8199.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8199.See file dsdata.txt to determine how the superseded data were derived.
AD8199
AD8199_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6655451669(NAD 83)
AD8199_MARKER: F = FLANGE-ENCASED ROD
AD8199_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AD8199_SP_SET: STAINLESS STEEL ROD
AD8199_STAMPING: K 413 1992
AD8199_MARK LOGO: NGS
AD8199_PROJECTION: RECESSED 5 CENTIMETERS
AD8199_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AD8199_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8199_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8199+SATELLITE: SATELLITE OBSERVATIONS - February 02, 2005
AD8199_ROD/PIPE-DEPTH:  5.7 meters
AD8199
AD8199  HISTORY     - Date     Condition        Report By
AD8199  HISTORY     - 1992     MONUMENTED       NGS
AD8199  HISTORY     - 19950328 GOOD             SFLWMD
AD8199  HISTORY     - 20010926 GOOD             MOREKL
AD8199  HISTORY     - 20020226 GOOD             MAPTEC
AD8199  HISTORY     - 20020517 GOOD             MAPTEC
AD8199  HISTORY     - 20021204 GOOD             USPSQD
AD8199  HISTORY     - 20021207 GOOD             FLDEP
AD8199  HISTORY     - 20040114 GOOD             USPSQD
AD8199  HISTORY     - 20040204 GOOD             FLDEP
AD8199  HISTORY     - 20050202 GOOD             USPSQD
AD8199
AD8199                          STATION DESCRIPTION
AD8199
AD8199'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8199'26.0 KM (16.15 MI) WESTERLY ALONG U.S. HIGHWAY 98 FROM THE JUNCTION
AD8199'OF INTERSTATE HIGHWAY 95 IN WEST PALM BEACH, 21.2 M (69.6 FT) NORTH
AD8199'OF THE CENTERLINE OF THE WESTBOUND LANES OF THE HIGHWAY, 1.5 M (4.9
AD8199'FT) WEST OF UTILITY POLE NUMBER 66320659802 WITH 2 GUY CABLES, 0.9 M
AD8199'(3.0 FT) BELOW THE LEVEL OF THE HIGHWAY, AND 0.4 M (1.3 FT) SOUTH OF
AD8199'A WITNESS POST.  NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH
AD8199'LOGO CAP.
AD8199
AD8199                          STATION RECOVERY (1995)
AD8199
AD8199'RECOVERY NOTE BY S FL WATER MGMT DIST 1995 (PLH)
AD8199'RECOVERED AS DESCRIBED.
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AD8199
AD8199 STATION RECOVERY (2001)
AD8199
AD8199'RECOVERY NOTE BY MORGAN AND EKLUND INC 2001 (MAB)
AD8199'RECOVERED AS DESCRIBED
AD8199'
AD8199'
AD8199
AD8199 STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
AD8199'RECOVERED AS DESCRIBED
AD8199'
AD8199'
AD8199'
AD8199'
AD8199
AD8199 STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD8199'STATION RECOVERY (2002)
AD8199'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD8199'RECOVERED AS DESCRIBED.
AD8199'
AD8199'
AD8199
AD8199 STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY US POWER SQUADRON 2002 (AAS)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199 STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (BPJ)
AD8199'THE MARK IS ABOUT 16.5 MI WEST-SOUTHWEST OF WEST PALM BEACH, IN
AD8199'SECTION 35, TOWNSHIP 43
AD8199'SOUTH, RANGE 40 EAST.
AD8199'
AD8199'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 441, U.S.
AD8199'HIGHWAY 98 AND STATE
AD8199'ROAD 7, ABOUT 8.8 MI WEST OF WEST PALM BEACH, GO WEST ON U.S. HIGHWAY
AD8199'441 AND U.S.
AD8199'HIGHWAY 98 FOR 3.5 MI TO THE INTERSECTION OF BIG BLUE TRACE ON THE
AD8199'LEFT AND F ROAD ON THE
AD8199'RIGHT, CONTINUE WEST ON U.S. HIGHWAY 441 AND U.S. HIGHWAY 98 FOR 4.45
AD8199'MI TO THE MARK ON
AD8199'THE RIGHT, A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF 18.7
AD8199'FT WITH AN NGS LOGO
AD8199'CAP FLUSH WITH THE GROUND AND ABOUT 4.0 FT BELOW THE LEVEL OF U.S.
AD8199'HIGHWAY 441 AND U.S.
AD8199'HIGHWAY 98, THE DATUM POINT IS RECESSED 0.2 FT BELOW THE LEVEL OF THE
AD8199'NGS LOGO CAP.
AD8199'
AD8199'LOCATED 69.6 FT NORTH OF THE APPROXIMATE CENTERLINE OF U.S. HIGHWAY
AD8199'441 AND U.S. HIGHWAY
AD8199'98, 4.9 FT WEST OF POWER POLE NUMBER 66320-59802, 4.9 FT WEST OF A
AD8199'METAL WITNESS POST AND
AD8199'1.3 FT SOUTH-SOUTHWEST OF A CARSONITE WITNESS POST.
AD8199'
AD8199'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.
AD8199'

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 AD8199
 AD8199                          STATION RECOVERY (2004)
 AD8199
 AD8199'RECOVERY NOTE BY US POWER SQUADRON 2004 (AAS)
 AD8199'RECOVERED IN GOOD CONDITION.
 AD8199
 AD8199                          STATION RECOVERY (2004)
 AD8199
 AD8199'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
 AD8199'RECOVERED IN GOOD CONDITION.
 AD8199
 AD8199                          STATION RECOVERY (2005)
 AD8199
 AD8199'RECOVERY NOTE BY US POWER SQUADRON 2005 (AAS)
 AD8199'RECOVERED IN GOOD CONDITION.
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AJ6175 ***********************************************************************
 AJ6175  DESIGNATION -  K 523    (CONTROL POINT)
 AJ6175  PID         -  AJ6175
 AJ6175  STATE/COUNTY-  FL/GLADES
 AJ6175  USGS QUAD   -  OKEECHOBEE SW (1972)
 AJ6175
 AJ6175                        *CURRENT SURVEY CONTROL
 AJ6175  ______________________________________________________________________
 AJ6175* NAD 83(1999)-  27 06 23.16391(N)    080 55 17.19877(W)     ADJUSTED
 AJ6175* NAVD 88     -        10.025  (meters)      32.89   (feet)  ADJUSTED
 AJ6175  ______________________________________________________________________
 AJ6175  X           -     896,476.632 (meters)                     COMP
 AJ6175  Y           -  -5,610,335.524 (meters)                     COMP
 AJ6175  Z           -   2,888,711.276 (meters)                     COMP
 AJ6175  LAPLACE CORR-          -3.27  (seconds)                    DEFLEC99
 AJ6175  ELLIP HEIGHT-        -16.055 (meters)          (12/12/02) GPS OBS
 AJ6175  GEOID HEIGHT-        -26.09  (meters)                     GEOID03
 AJ6175  DYNAMIC HT  -         10.010 (meters)      32.84  (feet)  COMP
 AJ6175  MODELED GRAV-     979,088.4   (mgal)                     NAVD 88
 AJ6175
 AJ6175  HORZ ORDER  -  FIRST
 AJ6175  VERT ORDER  -  FIRST     CLASS II
 AJ6175  ELLP ORDER  -  FOURTH    CLASS I
 AJ6175
 AJ6175.The horizontal coordinates were established by GPS observations
 AJ6175.and adjusted by the National Geodetic Survey in December 2002.
 AJ6175
 AJ6175.The orthometric height was determined by differential leveling
 AJ6175.and adjusted by the NATIONAL GEODETIC SURVEY in January 2002.
 AJ6175
 AJ6175.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AJ6175
 AJ6175.The Laplace correction was computed from DEFLEC99 derived deflections.
 AJ6175
 AJ6175.The ellipsoidal height was determined by GPS observations
 AJ6175.and is referenced to NAD 83.
 AJ6175
 AJ6175.The geoid height was determined by GEOID03.
 AJ6175
 AJ6175.The dynamic height is computed by dividing the NAVD 88
 AJ6175.geopotential number by the normal gravity value computed on the
 AJ6175.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ6175.degrees latitude (g = 980.6199 gals.).
 AJ6175
 AJ6175.The modeled gravity was interpolated from observed gravity values.
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AJ6175
AJ6175;                    North         East     Units Scale Factor Converg.
AJ6175;SPC FL E     -   307,199.188   207,789.246   MT  0.99994193   +0 02 08.9
AJ6175;SPC FL E     - 1,007,869.34    681,721.88   sFT  0.99994193   +0 02 08.9
AJ6175;UTM  17      - 2,998,226.355   507,786.588   MT  0.99960075   +0 02 08.9
AJ6175
AJ6175!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ6175!SPC FL E     -   1.00000252  x   0.99994193  =   0.99994445
AJ6175!UTM  17      -   1.00000252  x   0.99960075  =   0.99960327
AJ6175
AJ6175                          SUPERSEDED SURVEY CONTROL
AJ6175
AJ6175  NAVD 88 (12/12/02)   10.03   (m)           32.9    (f) LEVELING    3
AJ6175
AJ6175.Superseded values are not recommended for survey control.
AJ6175.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6175.See file dsdata.txt to determine how the superseded data were derived.
AJ6175
AJ6175_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK0778798226(NAD 83)
AJ6175_MARKER: DD = SURVEY DISK
AJ6175_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6175_STAMPING: K 523 2001 CERP
AJ6175_MARK LOGO: USE
AJ6175_PROJECTION: RECESSED 6 CENTIMETERS
AJ6175_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6175_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6175+STABILITY: SURFACE MOTION
AJ6175_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6175+SATELLITE: SATELLITE OBSERVATIONS - April 10, 2002
AJ6175
AJ6175  HISTORY     - Date     Condition        Report By
AJ6175  HISTORY     - 20010510 MONUMENTED       EMCINC
AJ6175  HISTORY     - 20020410 GOOD             MAPTEC
AJ6175
AJ6175                          STATION DESCRIPTION
AJ6175
AJ6175'DESCRIBED BY EMC INCORPORATED 2001 (MKC)
AJ6175'THE STATION IS LOCATED APPROXIMATELY 15.16 KILOMETERS (9.4 MILES)
AJ6175'SOUTHWEST OF
AJ6175'OKEECHOBEE, FLORIDA ON TOP OF THE HERBERT HOOVER LEVEE.
AJ6175'LOCATED ON THE OKEECHOBEE SOUTHWEST QUAD SECTION 9, TOWNSHIP 39 SOUTH,
AJ6175'RANGE 34 EAST.
AJ6175'
AJ6175'OWNERSHIP   SOUTH FLORIDA WATER MANAGEMENT DISTRICT
AJ6175'
AJ6175'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 441 AND
AJ6175'STATE ROAD 78 IN
AJ6175'OKEECHOBEE, FLORIDA GO SOUTHWEST ON STATE ROAD 78 FOR 11.45 KILOMETERS
AJ6175'(7.1 MILES) TO
AJ6175'COUNTY ROAD 78B, ACCESS ROAD ON LEFT, THENCE SOUTHEAST ON COUNTY ROAD
AJ6175'78B 1.16
AJ6175'KILOMETERS (0.7 MILES) TO A GATE, THENCE CONTINUE SOUTHEAST 0.24
AJ6175'KILOMETERS (0.15 MILES) TO
AJ6175'THE TOP OF HERBERT HOOVER LEVEE, THENCE SOUTHWEST ON THE LEVEE 3.06
AJ6175'KILOMETERS (1.9
AJ6175'MILES) TO THE MARK ON LEFT, ON THE LAKE SIDE OF THE LEVEE.
AJ6175'
AJ6175'THE STATION IS 2.8 METERS (9.2 FEET) SOUTHEAST OF THE CENTER OF THE
AJ6175'LEVEE, 0.6 METERS (2.0
AJ6175'FEET) WEST OF A CARSONITE WITNESS POST AND 0.25 METERS (0.8 FEET)
AJ6175'SOUTH OF A MAGNET
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 AJ6175'BURIED 0.1 METERS (0.3 FEET) BELOW GROUND.
 AJ6175'
 AJ6175
 AJ6175                          STATION RECOVERY (2002)
 AJ6175
 AJ6175'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (MKC)
 AJ6175'THE STATION IS LOCATED APPROXIMATELY 15.16 KILOMETERS (9.4 MILES)
 AJ6175'SOUTHWEST OF
 AJ6175'OKEECHOBEE, FLORIDA ON TOP OF THE HERBERT HOOVER LEVEE.
 AJ6175'LOCATED ON THE OKEECHOBEE SOUTHWEST QUAD SECTION 9, TOWNSHIP 39 SOUTH,
 AJ6175'RANGE 34 EAST.
 AJ6175'
 AJ6175'OWNERSHIP   SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 AJ6175'
 AJ6175'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 441 AND
 AJ6175'STATE ROAD 78 IN
 AJ6175'OKEECHOBEE, FLORIDA GO SOUTHWEST ON STATE ROAD 78 FOR 11.45 KILOMETERS
 AJ6175'(7.1 MILES) TO
 AJ6175'COUNTY ROAD 78B, ACCESS ROAD ON LEFT, THENCE SOUTHEAST ON COUNTY ROAD
 AJ6175'78B 1.16
 AJ6175'KILOMETERS (0.7 MILES) TO A GATE, THENCE CONTINUE SOUTHEAST 0.24
 AJ6175'KILOMETERS (0.15 MILES) TO
 AJ6175'THE TOP OF HERBERT HOOVER LEVEE, THENCE SOUTHWEST ON THE LEVEE 3.06
 AJ6175'KILOMETERS (1.9
 AJ6175'MILES) TO THE MARK ON LEFT, ON THE LAKE SIDE OF THE LEVEE.
 AJ6175'
 AJ6175'THE STATION IS 2.8 METERS (9.2 FEET) SOUTHEAST OF THE CENTER OF THE
 AJ6175'LEVEE, 0.6 METERS (2.0
 AJ6175'FEET) WEST OF A CARSONITE WITNESS POST AND 0.25 METERS (0.8 FEET)
 AJ6175'SOUTH OF A MAGNET
 AJ6175'BURIED 0.1 METERS (0.3 FEET) BELOW GROUND.
 AJ6175'
 AJ6175'
 AJ6175'                                          STATION RECOVERY (2002)
 AJ6175'
 AJ6175'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
 AJ6175'RECOVERED AS DESCRIBED.
 AJ6175'
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007

 AJ6226 ***********************************************************************
 AJ6226  DESIGNATION -  L 048              (CONTROL POINT)
 AJ6226  PID         -  AJ6226
 AJ6226  STATE/COUNTY-  FL/MARTIN
 AJ6226  USGS QUAD   -  CHANEY BAY (1970)
 AJ6226
 AJ6226                        *CURRENT SURVEY CONTROL
 AJ6226  ______________________________________________________________________
 AJ6226* NAD 83(1999)-  27 05 10.08514(N)    080 39 40.20976(W)     ADJUSTED
 AJ6226* NAVD 88     -        10.432  (meters)      34.23   (feet)  ADJUSTED
 AJ6226  ______________________________________________________________________
 AJ6226  X           -     922,119.335 (meters)                     COMP
 AJ6226  Y           -  -5,607,216.166 (meters)                     COMP
 AJ6226  Z           -   2,886,708.828 (meters)                     COMP
 AJ6226  LAPLACE CORR-          -1.65  (seconds)                    DEFLEC99
 AJ6226  ELLIP HEIGHT-         -16.115 (meters)          (12/12/02) GPS OBS
 AJ6226  GEOID HEIGHT-         -26.55  (meters)                     GEOID03
 AJ6226  DYNAMIC HT  -          10.416 (meters)      34.17  (feet)  COMP
 AJ6226  MODELED GRAV-     979,092.1   (mgal)                       NAVD 88
 AJ6226
 AJ6226  HORZ ORDER  -  FIRST
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AJ6226 VERT ORDER - FIRST   CLASS II
AJ6226 ELLP ORDER - FOURTH   CLASS I
AJ6226
AJ6226.The horizontal coordinates were established by GPS observations
AJ6226.and adjusted by the National Geodetic Survey in December 2002.
AJ6226
AJ6226.The orthometric height was determined by differential leveling
AJ6226.and adjusted by the NATIONAL GEODETIC SURVEY in January 2002.
AJ6226
AJ6226.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ6226
AJ6226.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ6226
AJ6226.The ellipsoidal height was determined by GPS observations
AJ6226.and is referenced to NAD 83.
AJ6226
AJ6226.The geoid height was determined by GEOID03.
AJ6226
AJ6226.The dynamic height is computed by dividing the NAVD 88
AJ6226.geopotential number by the normal gravity value computed on the
AJ6226.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6226.degrees latitude (g = 980.6199 gals.).
AJ6226
AJ6226.The modeled gravity was interpolated from observed gravity values.
AJ6226
AJ6226;   North   East   Units Scale Factor Converg.
AJ6226;SPC FL E   -   304,992.825   233,603.073   MT 0.99995511   +0 09 15.4
AJ6226;SPC FL E   - 1,000,630.63   766,412.75   sFT 0.99995511   +0 09 15.4
AJ6226;UTM 17   - 2,996,020.744   533,591.608   MT 0.99961393   +0 09 15.4
AJ6226
AJ6226!   - Elev Factor x Scale Factor =   Combined Factor
AJ6226!SPC FL E   -   1.00000253 x   0.99995511 =   0.99995764
AJ6226!UTM 17   -   1.00000253 x   0.99961393 =   0.99961646
AJ6226
AJ6226   SUPERSEDED SURVEY CONTROL
AJ6226
AJ6226 NAVD 88 (12/12/02)   10.43   (m)   34.2   (f) LEVELING   3
AJ6226
AJ6226.Superseded values are not recommended for survey control.
AJ6226.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6226.See file dsdata.txt to determine how the superseded data were derived.
AJ6226
AJ6226_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK3359296021(NAD 83)
AJ6226_MARKER: DD = SURVEY DISK
AJ6226_SETTING: 36 = SET IN A MASSIVE STRUCTURE
AJ6226_SP_SET: CONCRETE LOCKWALL
AJ6226_STAMPING: BM L 048 1982
AJ6226_MARK LOGO: SFLWMD
AJ6226_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6226_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AJ6226+STABILITY: POSITION/ELEVATION WELL
AJ6226_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6226+SATELLITE: SATELLITE OBSERVATIONS - 2002
AJ6226
AJ6226 HISTORY   - Date   Condition   Report By
AJ6226 HISTORY   - 1982   MONUMENTED   SFLWMD
AJ6226 HISTORY   - 20010614 GOOD   EMCINC
AJ6226 HISTORY   - 2002   GOOD   MAPTEC
AJ6226
AJ6226   STATION DESCRIPTION
AJ6226

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 AJ6226'DESCRIBED BY EMC INCORPORATED 2001 (WJB)
 AJ6226'THE STATION IS LOCATED APPROXIMATELY 24.5 KILOMETERS (15.2 MILES)
 AJ6226'SOUTHEAST OF OKEECHOBEE, FLORIDA ON STRUCTURE S 135 ON THE
 AJ6226'HERBERT HOOVER LEVEE.  LOCATED ON THE CHANEY BAY QUAD, SECTION 17,
 AJ6226'TOWNSHIP 39 SOUTH, RANGE 37 EAST.
 AJ6226'
 AJ6226'OWNERSHIP  SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 AJ6226'
 AJ6226'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 78 AND
 AJ6226'U.S. HIGHWAY 441/98 IN OKEECHOBEE, FLORIDA GO SOUTHEAST ON U.S.
 AJ6226'441/98 13.38 KILOMETERS (8.3 MILES) TO AN ASPHALT ACCESS ROAD ON
 AJ6226'RIGHT LEADING TO STRUCTURE G36, THENCE CONTINUE SOUTHWEST ON
 AJ6226'ACCESS ROAD 0.16 KILOMETERS (0.1 MILES) TO A GATE AT A BRIDGE, THENCE
 AJ6226'CONTINUE SOUTHWEST 0.16 KILOMETERS (0.1 MILES) TO THE TOP OF
 AJ6226'HERBERT HOOVER LEVEE, THENCE SOUTHEAST ON THE LEVEE 10.48
 AJ6226'KILOMETERS (6.5 MILES) TO STRUCTURE S 135 AND THE MARK ON LEFT ON
 AJ6226'THE SOUTH WALL OF THE LOCK. ALSO FROM THE INTERSECTION OF U.S.
 AJ6226'441/98 AND STATE ROAD 78 IN OKEECHOBEE GO SOUTHEAST ON U.S. 441/98
 AJ6226'23.70 KILOMETERS (14.7 MILES) TO SOUTHWEST WOOD STREET ON RIGHT,
 AJ6226'THENCE WEST 0.48 KILOMETERS (0.3 MILES) ON SOUTHWEST WOOD STREET
 AJ6226'TO A GATE AT THE TOE OF LEVEE, THENCE CONTINUE SOUTHWEST 0.16
 AJ6226'KILOMETERS (0.1 MILES) TO THE TOP OF HERBERT HOOVER LEVEE, THENCE
 AJ6226'SOUTH 0.32 KILOMETERS (0.2 MILES) TO STRUCTURE S 135 AND THE MARK
 AJ6226'ON LEFT ON THE SOUTH WALL OF LOCK.
 AJ6226'
 AJ6226'THE STATION IS 3.3 METERS (10.8 FEET) SOUTH OF THE CENTER OF THE
 AJ6226'LOCK CHAMBER ON S 135 AND 1.6 METERS (5.3 FEET) NORTHEAST OF THE
 AJ6226'NORTH END OF A STEEL GUARD RAIL.
 AJ6226'THE MARK IS A SOUTH FLORIDA WATER MANAGEMENT DISTRICT DISK SET
 AJ6226'FLUSH WITH THE TOP OF CONCRETE LOCK WALL ON S 135.
 AJ6226'
 AJ6226'
 AJ6226
 AJ6226                          STATION RECOVERY (2002)
 AJ6226
 AJ6226'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (WJB)
 AJ6226'RECOVERED AS DESCRIBED.
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AD7305 ***********************************************************************
 AD7305  DESIGNATION -  LICAN        (CONTROL POINT)
 AD7305  PID         -  AD7305
 AD7305  STATE/COUNTY-  FL/PALM BEACH
 AD7305  USGS QUAD   -  PAHOKEE (1970)
 AD7305
 AD7305                         *CURRENT SURVEY CONTROL
 AD7305  ______________________________________________________________________
 AD7305* NAD 83(1999)-  26 46 34.73889(N)    080 41 36.79149(W)     ADJUSTED
 AD7305* NAVD 88     -        10.630  (meters)      34.88   (feet)  ADJUSTED
 AD7305  ______________________________________________________________________
 AD7305  X           -     921,464.541 (meters)                     COMP
 AD7305  Y           -  -5,623,081.228 (meters)                     COMP
 AD7305  Z           -   2,856,103.901 (meters)                     COMP
 AD7305  LAPLACE CORR-          -1.62  (seconds)                    DEFLEC99
 AD7305  ELLIP HEIGHT-         -14.603 (meters)          (12/12/02) GPS OBS
 AD7305  GEOID HEIGHT-         -25.23  (meters)                     GEOID03
 AD7305  DYNAMIC HT  -          10.614 (meters)      34.82  (feet)  COMP
 AD7305  MODELED GRAV-     979,114.1   (mgal)                       NAVD 88
 AD7305
 AD7305  HORZ ORDER  -  FIRST
 AD7305  VERT ORDER  -  SECOND    CLASS I
 AD7305  ELLP ORDER  -  FOURTH    CLASS I
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AD7305
AD7305.The horizontal coordinates were established by GPS observations
AD7305.and adjusted by the National Geodetic Survey in December 2002.
AD7305
AD7305.The orthometric height was determined by differential leveling
AD7305.and adjusted by the NATIONAL GEODETIC SURVEY in September 2001.
AD7305
AD7305.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD7305
AD7305.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7305
AD7305.The ellipsoidal height was determined by GPS observations
AD7305.and is referenced to NAD 83.
AD7305
AD7305.The geoid height was determined by GEOID03.
AD7305
AD7305.The dynamic height is computed by dividing the NAVD 88
AD7305.geopotential number by the normal gravity value computed on the
AD7305.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7305.degrees latitude (g = 980.6199 gals.).
AD7305
AD7305.The modeled gravity was interpolated from observed gravity values.
AD7305

		North	East	Units	Scale Factor	Converg.
AD7305;SPC FL E	-	270,657.683	230,474.589	MT	0.99995264	+0 08 17.0
AD7305;SPC FL E	-	887,982.75	756,148.71	sFT	0.99995264	+0 08 17.0
AD7305;UTM 17	-	2,961,697.317	530,464.191	MT	0.99961146	+0 08 17.0

AD7305

		Elev Factor	x	Scale Factor	=	Combined Factor
AD7305!SPC FL E	-	1.00000229	x	0.99995264	=	0.99995493
AD7305!UTM 17	-	1.00000229	x	0.99961146	=	0.99961375

AD7305

		Primary Azimuth Mark	Grid Az
AD7305:SPC FL E	-	VORTAC PAHOKEE PHK	016 23 27.3
AD7305:UTM 17	-	VORTAC PAHOKEE PHK	016 23 27.3

AD7305

PID	Reference Object	Distance	Geod. Az dddmmss.s
AD7308	VORTAC PAHOKEE PHK	APPROX. 0.7 KM	0163144.3
AD7317	PAHOKEE MUN TANK	APPROX. 6.0 KM	0271704.4
AD7321	PAHOKEE FLA HIGHWAY PATROL MST	APPROX. 7.8 KM	0331140.3
CW9171	LICAN AZ MK		0384845.6
AD7314	PAHOKEE SE MUN TANK	APPROX. 5.8 KM	0444057.7
AD7292	BRYANT US SUGAR CORP WEST TANK	APPROX.10.6 KM	0445300.5
AD7301	PAHOKEE LAKE EQUIPMENT RAD MST	APPROX. 0.7 KM	1365228.9
CW9172	LICAN RM 1	13.068 METERS	14358
AD7371	BELLE GLADE CANE GROWERS TANK	APPROX. 9.1 KM	1500445.3
AD7379	BELLE GLADE CO SHERIFF DEPT MT	APPROX. 6.3 KM	1543729.1
AD7378	BELLE GLADE FIRE DIST RAD MAST	APPROX. 6.4 KM	1552631.5
AD7358	BELLE GLADE SE TANK	APPROX.10.7 KM	1670214.7
AD7363	BELLE GLADE NORTH MUN TANK	APPROX. 9.1 KM	1690957.6
AD7373	BELLE GLADE RAD WSWN NEW MAST	APPROX. 7.2 KM	1712919.9
AD7370	BELLE GLADE CO PUB SCH TV MAST	APPROX. 8.1 KM	1724027.6
AD7360	BELLE GLADE SOU BELL TEL MAST	APPROX.10.4 KM	1740836.2
CW9173	LICAN RM 2	16.220 METERS	32437

AD7305
AD7305 SUPERSEDED SURVEY CONTROL
AD7305
AD7305 NAD 83(1990)- 26 46 34.73788(N) 080 41 36.79048(W) AD( ) 1

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AD7305  NAD 83(1986)-  26 46 34.74113(N)    080 41 36.79943(W) AD(       ) 1
AD7305  NAD 27      -  26 46 33.51344(N)    080 41 37.58991(W) AD(       ) 1
AD7305  NAVD 88 (12/12/02)   10.63   (m)           34.9    (f) LEVELING    3
AD7305  NGVD 29 (07/19/86)   11.0    (m)           36.     (f) VERT ANG
AD7305
AD7305.Superseded values are not recommended for survey control.
AD7305.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7305.See file dsdata.txt to determine how the superseded data were derived.
AD7305
AD7305_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK3046461697(NAD 83)
AD7305_MARKER: DS = TRIANGULATION STATION DISK
AD7305_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AD7305_SP_SET: TOP OF SQUARE CONCRETE MONUMENT
AD7305_STAMPING: LICAN 1970
AD7305_MARK LOGO: NGS
AD7305_PROJECTION: FLUSH
AD7305_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7305_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD7305+STABILITY: SURFACE MOTION
AD7305_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7305+SATELLITE: SATELLITE OBSERVATIONS - May 18, 2002
AD7305
AD7305  HISTORY     - Date     Condition        Report By
AD7305  HISTORY     - 1970     MONUMENTED       NGS
AD7305  HISTORY     - 20000318 GOOD             FLDEP
AD7305  HISTORY     - 20020518 GOOD             MAPTEC
AD7305
AD7305                          STATION DESCRIPTION
AD7305
AD7305'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970 (CLH)
AD7305'STATION IS ABOUT 7 MILES NORTH OF BELLE GLADE, 3-1/2 MILES
AD7305'SOUTHWEST OF PAHOKEE, 1 MILE SOUTHWEST OF THE PALM BEACH
AD7305'COUNTY GLADES AIRPORT, ON THE EAST SIDE OF LAKE OKEECHOBEE,
AD7305'AT THE NORTHEAST EDGE OF PELICAN BAY, ON TOP OF THE LEVEE
AD7305'AROUND THE LAKE AND ON PROPERTY CONTROLLED BY THE CORP OF
AD7305'ENGINEERS, U.S. ARMY.
AD7305'
AD7305'TO REACH THE STATION FROM THE POST OFFICE IN PAHOKEE, GO
AD7305'SOUTHWEST ON STATE HIGHWAY 715 (BACOM POINT ROAD) FOR 3.2 MILES
AD7305'TO THE ENTRANCE TO PALM BEACH COUNTY GLADES AIRPORT.  CONTINUE
AD7305'SOUTHWEST ON HIGHWAY 715 FOR 0.65 MILE TO A DRIVEWAY AND GATE
AD7305'ON THE RIGHT AND AZIMUTH MARK ON RIGHT AS DESCRIBED.  CONTINUE
AD7305'SOUTHWEST ON HIGHWAY 715 FOR 0.15 MILE TO A CROSSROAD.  TURN
AD7305'RIGHT AND GO WEST ON GRAVEL ROAD ALONG THE NORTH SIDE OF A
AD7305'CANAL FOR 0.3 MILE TO THE TOP OF A LEVEE.  TURN LEFT AND GO
AD7305'SOUTH ON TOP OF LEVEE FOR 0.05 MILE TO MARK ON LEFT AS
AD7305'DESCRIBED.
AD7305'
AD7305'ALL MARKS ARE STANDARD DISKS SET IN ROUND CONCRETE POSTS.
AD7305'
AD7305'STATION MARK, STAMPED LICAN 1970, IS SET FLUSH.  IT IS
AD7305'67 FEET SOUTHEAST OF CENTER OF CANAL UNDER THE LEVEE,
AD7305'54.5 FEET SOUTH OF THE SOUTHWEST CORNER OF A TIN PUMP HOUSE,
AD7305'14.5 FEET SOUTHEAST OF THE SOUTH END OF A GUARD RAIL, 14 FEET
AD7305'EAST OF CENTER OF THE LEVEE ROAD AND 5.5 FEET SOUTHEAST OF
AD7305'A METAL SIGN 1140+00.
AD7305'
AD7305'REFERENCE MARK 1, STAMPED NO 1 1970, IS SET FLUSH.  IT IS 92 FEET
AD7305'SOUTH OF THE SOUTHWEST CORNER OF THE PUMP HOUSE, 57.5 FEET SOUTHEAST
AD7305'OF THE SOUTH END OF THE GUARD RAIL AND 15.5 FEET NORTHEAST OF
AD7305'CENTER OF THE LEVEE ROAD.
```

AD7305'
AD7305'REFERENCE MARK 2, STAMPED LICAN NO 2 1970, IS SET FLUSH. IT
AD7305'IS 33.5 FEET WEST OF THE SOUTHWEST CORNER OF THE PUMP HOUSE,
AD7305'9.5 FEET EAST OF CENTER OF THE LEVEE ROAD, 8 FEET SOUTH OF A
AD7305'METAL SIGN 12 A AND 1.5 FEET EAST OF THE GUARD RAIL.
AD7305'
AD7305'AZIMUTH MARK, STAMPED LICAN 1970, PROJECTS ABOUT 4 INCHES. IT
AD7305'IS 77 FEET WEST OF CENTER OF STATE HIGHWAY 715, 8 FEET NORTH
AD7305'OF CENTER OF A DRIVEWAY AND GATE, 1.8 FEET SOUTHWEST OF A
AD7305'METAL WITNESS POST AND 1.5 FEET NORTHWEST OF THE NORTH 1 OF 2
AD7305'GATE POSTS.
AD7305'
AD7305'NOTE--THE UNDERGROUND STATION MARK IS STAMPED LICAN 4
AD7305'1970. IT IS IN ERROR.
AD7305'
AD7305'HEIGHT OF LIGHT ABOVE STATION MARK 1 METER.
AD7305
AD7305   STATION RECOVERY (2000)
AD7305
AD7305'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AD7305'THE MARK IS ABOUT 9.65 MI (15.53 KM) SOUTHWEST OF CANAL POINT, 8.85 MI
AD7305'(14.24 KM) NORTH OF SOUTH BAY, 7.0 MI (11.3 KM) NORTH OF BELLE GLADE
AD7305'ON THE EAST SIDE OF LAKE OKEECHOBEE, IN ESTIMATED SECTION 36, TOWNSHIP
AD7305'42 SOUTH, RANGE 36 EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S.
AD7305'HIGHWAY 27 AND STATE ROAD 80 IN SOUTH BAY, GO NORTHERLY ON U.S.
AD7305'HIGHWAY 27 FOR 1.6 MI (2.6 KM) TO THE JUNCTION OF A PAVED LEVEE ROAD
AD7305'ON THE RIGHT, TURN RIGHT ON THE PAVED LEVEE ROAD AND GO NORTHEAST FOR
AD7305'0.15 MI (0.24 KM) TO THE ENTRANCE TO THE CITY OF SOUTH BAY MUNICIPAL
AD7305'BOAT RAMP ON THE LEFT, TURN LEFT ON THE ENTRANCE ROAD AND GO NORTH
AD7305'UPHILL FOR 0.05 MI (0.08 KM) TO THE TOP OF THE LAKE OKEECHOBEE LEVEE
AD7305'ROAD, TURN RIGHT ON THE LEVEE ROAD AND GO NORTHEAST FOR ABOUT 80.0 FT
AD7305'(24.4 M) TO A LOCKED GATE ACROSS THE LEVEE ROAD, PASSING THRU THE
AD7305'LOCKED GATE CONTINUE NORTHEAST FOR 1.2 MI (1.9 KM) TO ANOTHER LOCKED
AD7305'GATE ACROSS THE LEVEE ROAD, PASSING THRU THE LOCKED GATE CONTINUE
AD7305'NORTHEAST FOR 0.2 MI (0.3 KM) TO PUMPING STATION NUMBER 2, CONTINUE
AD7305'NORTHEAST ON THE LEVEE ROAD FOR 0.4 MI (0.6 KM) PASSING THROUGH 5 MORE
AD7305'LOCKED GATES TO THE INTERSECTION OF WEST CANAL STREET, CONTINUE
AD7305'NORTHEAST FOR ABOUT 160.0 FT (48.8 M) TO A LOCKED GATE, CONTINUE
AD7305'NORTHEAST ON THE LEVEE ROAD FOR 3.65 MI (5.87 KM) TO A LOCKED GATE,
AD7305'CONTINUE NORTHEAST FOR 0.05 MI (0.08 KM) TO A LOCKED GATE, CONTINUE
AD7305'NORTHEAST FOR 1.9 MI (3.1 KM) TO A LOCKED GATE ACROSS THE LEVEE ROAD,
AD7305'CONTINUE NORTHEAST FOR 0.05 MI (0.08 KM) TO THE MARK ON THE RIGHT, SET
AD7305'IN THE TOP OF A ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND AND 3.0
AD7305'FT (0.9 M) BELOW THE LEVEL OF THE LEVEE ROAD. THE MARK CAN ALSO BE
AD7305'REACHED FROM THE JUNCTION OF U.S. HIGHWAY 441, 98, COUNTY ROAD 715 AND
AD7305'COUNTY ROAD 700 IN CANAL POINT, GO NORTHERLY ON U.S. HIGHWAY 441 AND
AD7305'98 FOR 0.2 MI (0.3 KM) TO THE JUNCTION OF A PAVED ROAD ON THE LEFT,
AD7305'TURN LEFT ON THE PAVED ROAD AND GO WEST FOR 0.05 MI (0.08 KM) CROSSING
AD7305'OVER THE RAILROAD TRACKS TO THE TOP OF A LEVEE ROAD, TURN LEFT ON THE
AD7305'LEVEE ROAD AND GO SOUTH FOR 0.1 MI (0.2 KM) TO A LOCKED GATE AND WATER
AD7305'STRUCTURE S 352, CONTINUE SOUTH ON THE LEVEE ROAD FOR 3.1 MI (5.0 KM)
AD7305'TO A LOCKED GATE ACROSS THE LEVEE ROAD, CONTINUE SOUTH ON THE LEVEE
AD7305'ROAD FOR 0.35 MI (0.56 KM) TO THE JUNCTION OF A PAVED LEVEE ENTRANCE
AD7305'(LEADING TO U.S. HIGHWAY 441), CONTINUE SOUTH ON THE LEVEE ROAD FOR
AD7305'0.2 MI (0.3 KM) TO A LOCKED GATE ACROSS THE LEVEE ROAD, CONTINUE SOUTH
AD7305'OF THE LEVEE ROAD FOR 0.5 MI (0.8 KM) TO A LOCKED GATE, CONTINUE SOUTH
AD7305'ON THE LEVEE ROAD FOR 3.5 MI (5.6 KM) TO A LOCKED GATE, CONTINUE SOUTH
AD7305'ON THE LEVEE ROAD FOR 0.1 MI (0.2 KM) TO THE MARK ON THE LEFT. LOCATED
AD7305'218.2 FT (66.5 M) NORTH OF A LOCKED GATE ACROSS THE LEVEE ROAD, 54.5
AD7305'FT (16.6 M) SOUTH OF THE SOUTHWEST CORNER OF A TIN PUMP HOUSE, 17.0 FT
AD7305'(5.2 M) EAST OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 14.5 FT

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AD7305'(4.4 M) SOUTHEAST OF THE SOUTH END OF A GUARDRAIL AND 2.8 FT (0.9 M)
AD7305'WEST OF A METAL WITNESS POST.
AD7305
AD7305                          STATION RECOVERY (2002)
AD7305
AD7305'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD7305'STATION RECOVERY (2002)
AD7305'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD7305'RECOVERED AS DESCRIBED.
AD7305'
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007

AD8234 ***********************************************************************
AD8234  DESIGNATION -  LO 7              (CONTROL POINT)
AD8234  PID         -  AD8234
AD8234  STATE/COUNTY-  FL/PALM BEACH
AD8234  USGS QUAD   -  LAKE HARBOR (1970)
AD8234
AD8234                         *CURRENT SURVEY CONTROL
AD8234  ______________________________________________________________________
AD8234* NAD 83(1999)-  26 43 41.79907(N)    080 51 09.15683(W)     ADJUSTED
AD8234* NAVD 88     -         7.085  (meters)      23.24   (feet)  ADJUSTED
AD8234  ______________________________________________________________________
AD8234  X           -     906,237.933 (meters)                     COMP
AD8234  Y           -  -5,627,979.180 (meters)                     COMP
AD8234  Z           -   2,851,349.524 (meters)                     COMP
AD8234  LAPLACE CORR-          -1.52  (seconds)                    DEFLEC99
AD8234  ELLIP HEIGHT-         -17.801 (meters)          (12/12/02) GPS OBS
AD8234  GEOID HEIGHT-         -24.89  (meters)                     GEOID03
AD8234  DYNAMIC HT  -           7.074 (meters)      23.21  (feet)  COMP
AD8234  MODELED GRAV-     979,107.9   (mgal)                       NAVD 88
AD8234
AD8234  HORZ ORDER  -  FIRST
AD8234  VERT ORDER  -  FIRST     CLASS II
AD8234  ELLP ORDER  -  FOURTH    CLASS I
AD8234
AD8234.The horizontal coordinates were established by GPS observations
AD8234.and adjusted by the National Geodetic Survey in December 2002.
AD8234
AD8234.The orthometric height was determined by differential leveling
AD8234.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
AD8234
AD8234.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD8234
AD8234.The Laplace correction was computed from DEFLEC99 derived deflections.
AD8234
AD8234.The ellipsoidal height was determined by GPS observations
AD8234.and is referenced to NAD 83.
AD8234
AD8234.The geoid height was determined by GEOID03.
AD8234
AD8234.The dynamic height is computed by dividing the NAVD 88
AD8234.geopotential number by the normal gravity value computed on the
AD8234.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8234.degrees latitude (g = 980.6199 gals.).
AD8234
AD8234.The modeled gravity was interpolated from observed gravity values.
AD8234
AD8234;                    North         East     Units Scale Factor Converg.
AD8234;SPC FL E     -   265,307.085   214,669.932   MT  0.99994383   +0 03 58.8
AD8234;SPC FL E     -   870,428.33    704,296.27    sFT  0.99994383   +0 03 58.8
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 AD8234;UTM  17      - 2,956,348.545   514,664.927   MT  0.99960265   +0 03 58.8
 AD8234
 AD8234!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AD8234!SPC FL E     -   1.00000280  x   0.99994383  =   0.99994663
 AD8234!UTM  17      -   1.00000280  x   0.99960265  =   0.99960545
 AD8234
 AD8234                          SUPERSEDED SURVEY CONTROL
 AD8234
 AD8234  NAVD 88 (12/12/02)    7.08   (m)           23.2    (f) LEVELING    3
 AD8234  NGVD 29 (09/01/92)    7.506  (m)           24.63   (f) ADJUSTED    1 2
 AD8234
 AD8234.Superseded values are not recommended for survey control.
 AD8234.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AD8234.See file dsdata.txt to determine how the superseded data were derived.
 AD8234
 AD8234_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK1466556349(NAD 83)
 AD8234_MARKER: DD = SURVEY DISK
 AD8234_SETTING: 37 = SET IN A MASSIVE RETAINING WALL
 AD8234_SP_SET: RETAINING WALL
 AD8234_STAMPING: LO 7 1982 BM
 AD8234_MARK LOGO: SFLWMD
 AD8234_MAGNETIC: N = NO MAGNETIC MATERIAL
 AD8234_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AD8234_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AD8234+SATELLITE: SATELLITE OBSERVATIONS - May 17, 2002
 AD8234
 AD8234  HISTORY     - Date     Condition        Report By
 AD8234  HISTORY     - 1982     MONUMENTED       SFLWMD
 AD8234  HISTORY     - 19920327 GOOD             NGS
 AD8234  HISTORY     - 20020517 GOOD             MAPTEC
 AD8234
 AD8234                          STATION DESCRIPTION
 AD8234
 AD8234'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
 AD8234'0.3 KM (0.20 MI) NORTHERLY ALONG BERNER ROAD FROM THE POST OFFICE IN
 AD8234'CLEWISTON, THENCE 3.0 KM (1.85 MI) EASTERLY ALONG STATE HIGHWAY 80,
 AD8234'THENCE 0.6 KM (0.35 MI) NORTHERLY ALONG RIDGELAWN ROAD LEADING
 AD8234'THROUGH A CORPS OF ENGINEERS COMPLEX TO THE TOP OF THE LAKE
 AD8234'OKEECHOBEE LEVEE, THENCE 7.4 KM (4.60 MI) EASTERLY ALONG A LEVEE
 AD8234'ROAD, IN TOP OF AND 0.1 M (0.3 FT) SOUTHEAST OF THE NORTHWEST END OF
 AD8234'THE CONCRETE RETAINING WALL OF AN INTAKE AT PUMPING STATION NUMBER S
 AD8234'236, 33.8 M (110.9 FT) NORTHEAST OF THE CENTER OF THE LEVEE ROAD, 3.0
 AD8234'M (9.8 FT) BELOW THE LEVEL OF THE ROAD, 0.2 M (0.7 FT) WEST OF THE
 AD8234'WEST CORNER OF A CHAIN-LINK FENCE, AND 0.1 M (0.3 FT) NORTHEAST OF
 AD8234'THE SOUTHWEST EDGE OF THE RETAINING WALL.
 AD8234
 AD8234                          STATION RECOVERY (2002)
 AD8234
 AD8234'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AD8234'STATION RECOVERY (2002)
 AD8234'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
 AD8234'RECOVERED AS DESCRIBED.
 AD8234'
 AD8234'
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
55.65994(W) AD(       ) 1
 AD7479  NAD 27      -  26 39 58.99179(N)    081 00 56.41960(W) AD(       ) 1
 AD7479  NGVD 29 (07/19/86)    5.7    (m)           19.     (f) VERT ANG
 AD7479
 AD7479.Superseded values are not re AJ3520
AJ7346 ***************************************************************
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AD8183 ***********************************************************************
 AD8183  DESIGNATION -  MF 41                      (CONTROL POINT)
 AD8183  PID         -  AD8183
 AD8183  STATE/COUNTY-  FL/PALM BEACH
 AD8183  USGS QUAD   -  PALM BEACH (1983)
 AD8183
 AD8183                        *CURRENT SURVEY CONTROL
 AD8183  ______________________________________________________________________
 AD8183* NAD 83(2007)-  26 40 39.67498(N)    080 06 14.15607(W)     ADJUSTED
 AD8183* NAVD 88     -         6.275  (meters)      20.59   (feet)  ADJUSTED
 AD8183  ______________________________________________________________________
 AD8183  EPOCH DATE  -        2002.00
 AD8183  X           -     980,124.726 (meters)                     COMP
 AD8183  Y           -  -5,618,137.981 (meters)                     COMP
 AD8183  Z           -   2,846,341.097 (meters)                     COMP
 AD8183  LAPLACE CORR-          -3.73  (seconds)                    DEFLEC99
 AD8183  ELLIP HEIGHT-         -19.898 (meters)          (02/10/07) ADJUSTED
 AD8183  GEOID HEIGHT-         -26.21  (meters)                     GEOID03
 AD8183  DYNAMIC HT  -           6.266 (meters)      20.56  (feet)  COMP
 AD8183
 AD8183  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AD8183  Type    PID    Designation                       North   East  Ellip
 AD8183  ----------------------------------------------------------------------
 AD8183  NETWORK AD8183 MF 41                               1.37   1.47   3.53
 AD8183  ----------------------------------------------------------------------
 AD8183  MODELED GRAV-     979,118.5   (mgal)                     NAVD 88
 AD8183
 AD8183  VERT ORDER  -  FIRST     CLASS II
 AD8183
 AD8183.The horizontal coordinates were established by GPS observations
 AD8183.and adjusted by the National Geodetic Survey in February 2007.
 AD8183
 AD8183.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AD8183.See National Readjustment for more information.
 AD8183.The horizontal coordinates are valid at the epoch date displayed above.
 AD8183.The epoch date for horizontal control is a decimal equivalence
 AD8183.of Year/Month/Day.
 AD8183
 AD8183.The orthometric height was determined by differential leveling
 AD8183.and adjusted in September 1992.
 AD8183
 AD8183.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD8183
 AD8183.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD8183
 AD8183.The ellipsoidal height was determined by GPS observations
 AD8183.and is referenced to NAD 83.
 AD8183
 AD8183.The geoid height was determined by GEOID03.
 AD8183
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AD8183.The dynamic height is computed by dividing the NAVD 88
AD8183.geopotential number by the normal gravity value computed on the
AD8183.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8183.degrees latitude (g = 980.6199 gals.).
AD8183
AD8183.The modeled gravity was interpolated from observed gravity values.
AD8183
AD8183;                    North         East     Units Scale Factor Converg.
AD8183;SPC FL E     -   260,006.746   289,188.208   MT  1.00003935   +0 24 08.4
AD8183;SPC FL E     -   853,038.80    948,778.31   sFT  1.00003935   +0 24 08.4
AD8183;UTM  17      - 2,951,050.014   589,157.777   MT  0.99969814   +0 24 08.4
AD8183
AD8183!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD8183!SPC FL E     -   1.00000313  x   1.00003935  =   1.00004248
AD8183!UTM  17      -   1.00000313  x   0.99969814  =   0.99970127
AD8183
AD8183                          SUPERSEDED SURVEY CONTROL
AD8183
AD8183  NAD 83(1999)-  26 40 39.67574(N)    080 06 14.15513(W) AD(       ) 1
AD8183  ELLIP H (07/06/01)  -19.944  (m)                       GP(       ) 4 2
AD8183  NAD 83(1990)-  26 40 39.67522(N)    080 06 14.15324(W) AD(       ) 1
AD8183  ELLIP H (08/13/93)  -19.930  (m)                       GP(       ) 4 1
AD8183  NAD 83(1990)-  26 40 39.67442(N)    080 06 14.15411(W) AD(       ) 1
AD8183  ELLIP H (03/31/93)  -19.916  (m)                       GP(       ) 4 1
AD8183  NGVD 29 (09/01/92)    6.737  (m)          22.10   (f) ADJUSTED    1 2
AD8183
AD8183.Superseded values are not recommended for survey control.
AD8183.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8183.See file dsdata.txt to determine how the superseded data were derived.
AD8183
AD8183_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK8915851050(NAD 83)
AD8183_MARKER: DB = BENCH MARK DISK
AD8183_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AD8183_SP_SET: CONCRETE POST
AD8183_STAMPING: MF 41 1954 JACKSONVILLE
AD8183_MARK LOGO: USE
AD8183_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8183_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD8183+STABILITY: SURFACE MOTION
AD8183_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8183+SATELLITE: SATELLITE OBSERVATIONS - April 23, 2005
AD8183
AD8183  HISTORY     - Date     Condition        Report By
AD8183  HISTORY     - 1954     MONUMENTED       USE
AD8183  HISTORY     - 19910810 GOOD             ADRGS
AD8183  HISTORY     - 19920317 GOOD             NGS
AD8183  HISTORY     - 20011109 GOOD             USPSQD
AD8183  HISTORY     - 20030304 GOOD             USPSQD
AD8183  HISTORY     - 20040419 GOOD             USPSQD
AD8183  HISTORY     - 20050423 GOOD             USPSQD
AD8183
AD8183                          STATION DESCRIPTION
AD8183
AD8183'DESCRIBED BY ADR GEODETIC SERVICES 1991
AD8183'TO REACH THE STATION FROM THE INTERSECTION OF SOUTHERN BOULEVARD
AD8183'(STATE ROUTE 80, US ROUTE 98) AND MILITARY TRAIL (STATE ROUTE 809) IN
AD8183'WEST PALM BEACH, GO EAST ON SOUTHERN BOULEVARD FOR 0.5 MI (0.80 KM)
AD8183'TO KIRK ROAD AND THE STATION IN THE NORTHWEST CORNER OF THE
AD8183'INTERSECTION.
AD8183'THE STATION IS WEST 2.61 FT (0.80 M) FROM A 6 INCH SQUARE CONCRETE
AD8183'MARKER, EAST 5.72 FT (1.74 M) FROM THE NORTHEAST CORNER OF CONCRETE
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 AD8183'POWER POLE 6-7820-6057-0-6, AND SOUTH 3.38 FT (1.03 M) FROM A NAIL
 AD8183'AND TIN TAB IN A POWER POLE.
 AD8183
 AD8183                          STATION RECOVERY (1992)
 AD8183
 AD8183'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992
 AD8183'IN WEST PALM BEACH, AT THE INTERSECTION OF U.S. HIGHWAY 98 (SOUTHERN
 AD8183'BOULEVARD) AND KIRK ROAD, 12.2 M (40.0 FT) WEST OF AND LEVEL WITH THE
 AD8183'CENTER OF AN ENTRANCE ROAD TO THE 391ST BOMB GROUP HEADQUARTERS AND
 AD8183'EXTENDED CENTER OF THE ROAD, 10.5 M (34.4 FT) NORTH OF THE CENTERLINE
 AD8183'OF THE WESTBOUND LANES OF THE HIGHWAY, 1.7 M (5.6 FT) EAST-NORTHEAST
 AD8183'OF A UTILITY POLE, 1.1 M (3.6 FT) SOUTH OF A T-JUNCTION UTILITY POLE
 AD8183'WITH A GUY CABLE AND WITNESS SIGN ATTACHED, 0.7 M (2.3 FT) WEST OF A
 AD8183'RIGHT-OF-WAY MARKER, AND THE MONUMENT IS FLUSH WITH THE GROUND
 AD8183'SURFACE.
 AD8183
 AD8183                          STATION RECOVERY (2001)
 AD8183
 AD8183'RECOVERY NOTE BY US POWER SQUADRON 2001 (AAS)
 AD8183'RECOVERED IN GOOD CONDITION.
 AD8183
 AD8183                          STATION RECOVERY (2003)
 AD8183
 AD8183'RECOVERY NOTE BY US POWER SQUADRON 2003 (AAS)
 AD8183'RECOVERED IN GOOD CONDITION.
 AD8183
 AD8183                          STATION RECOVERY (2004)
 AD8183
 AD8183'RECOVERY NOTE BY US POWER SQUADRON 2004 (AAS)
 AD8183'RECOVERED IN GOOD CONDITION.
 AD8183
 AD8183                          STATION RECOVERY (2005)
 AD8183
 AD8183'RECOVERY NOTE BY US POWER SQUADRON 2005 (AAS)
 AD8183'RECOVERED IN GOOD CONDITION.

 *** retrieval complete.
 Elapsed Time = 00:00:00
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AJ2436 ***********************************************************************
 AJ2436  CBN         -  This is a Cooperative Base Network Control Station.
 AJ2436  DESIGNATION -  OKEEPORT RESET               (CONTROL POINT)
 AJ2436  PID         -  AJ2436
 AJ2436  STATE/COUNTY-  FL/OKEECHOBEE
 AJ2436  USGS QUAD   -  TAYLOR CREEK SE (1972)
 AJ2436
 AJ2436                        *CURRENT SURVEY CONTROL
 AJ2436  ______________________________________________________________________
 AJ2436* NAD 83(2007)-  27 15 59.40495(N)    080 51 08.07925(W)     ADJUSTED
 AJ2436* NAVD 88     -         9.419  (meters)      30.90   (feet)  ADJUSTED
 AJ2436  ______________________________________________________________________
 AJ2436  EPOCH DATE  -        2002.00
 AJ2436  X           -     901,963.475 (meters)                     COMP
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AJ2436  Y           -  -5,601,247.214 (meters)                     COMP
AJ2436  Z           -   2,904,487.714 (meters)                     COMP
AJ2436  LAPLACE CORR-          -2.15  (seconds)                    DEFLEC99
AJ2436  ELLIP HEIGHT-         -17.197 (meters)          (02/10/07) ADJUSTED
AJ2436  GEOID HEIGHT-         -26.60  (meters)                     GEOID03
AJ2436  DYNAMIC HT  -           9.405 (meters)      30.86  (feet)  COMP
AJ2436
AJ2436  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AJ2436  Type    PID    Designation                      North   East  Ellip
AJ2436  ----------------------------------------------------------------
AJ2436  NETWORK AJ2436 OKEEPORT RESET                     0.39   0.33   0.96
AJ2436  ----------------------------------------------------------------
AJ2436  MODELED GRAV-     979,098.1   (mgal)                       NAVD 88
AJ2436
AJ2436  VERT ORDER  -  FIRST     CLASS II
AJ2436
AJ2436.The horizontal coordinates were established by GPS observations
AJ2436.and adjusted by the National Geodetic Survey in February 2007.
AJ2436
AJ2436.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AJ2436.See National Readjustment for more information.
AJ2436.The horizontal coordinates are valid at the epoch date displayed above.
AJ2436.The epoch date for horizontal control is a decimal equivalence
AJ2436.of Year/Month/Day.
AJ2436
AJ2436.The orthometric height was determined by differential leveling
AJ2436.and adjusted in January 2002.
AJ2436.No vertical observational check was made to the station.
AJ2436
AJ2436.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ2436
AJ2436.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ2436
AJ2436.The ellipsoidal height was determined by GPS observations
AJ2436.and is referenced to NAD 83.
AJ2436
AJ2436.The geoid height was determined by GEOID03.
AJ2436
AJ2436.The dynamic height is computed by dividing the NAVD 88
AJ2436.geopotential number by the normal gravity value computed on the
AJ2436.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ2436.degrees latitude (g = 980.6199 gals.).
AJ2436
AJ2436.The modeled gravity was interpolated from observed gravity values.
AJ2436
AJ2436;                   North         East     Units Scale Factor Converg.
AJ2436;SPC FL E     -   324,940.807   214,629.901   MT  0.99994382   +0 04 03.7
AJ2436;SPC FL E     - 1,066,076.63    704,164.93   sFT  0.99994382   +0 04 03.7
AJ2436;UTM  17      - 3,015,961.920   514,624.909   MT  0.99960264   +0 04 03.7
AJ2436
AJ2436!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ2436!SPC FL E     -   1.00000270  x   0.99994382  =   0.99994652
AJ2436!UTM  17      -   1.00000270  x   0.99960264  =   0.99960534
AJ2436
AJ2436:                Primary Azimuth Mark                     Grid Az
AJ2436:SPC FL E     -  OKEEPORT AZ MK                          048 04 13.6
AJ2436:UTM  17      -  OKEEPORT AZ MK                          048 04 13.6
AJ2436
AJ2436|-----------------------------------------------------------------------|
AJ2436| PID    Reference Object                    Distance      Geod. Az   |
AJ2436|                                                          dddmmss.s  |
```

AJ2436| AF7458 OKEEPORT AZ MK   APPROX. 0.9 KM 0480817.3 |
AJ2436|---|
AJ2436
AJ2436   SUPERSEDED SURVEY CONTROL
AJ2436
AJ2436 ELLIP H (12/09/02) -17.196 (m)   GP(   ) 4 1
AJ2436 NAD 83(1999)- 27 15 59.40509(N)   080 51 08.07943(W) AD(   ) A
AJ2436 ELLIP H (04/12/01) -17.196 (m)   GP(   ) 4 1
AJ2436 NAVD 88 (12/09/02)   9.42   (m)   30.9   (f) LEVELING   3
AJ2436
AJ2436.Superseded values are not recommended for survey control.
AJ2436.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ2436.See file dsdata.txt to determine how the superseded data were derived.
AJ2436
AJ2436_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL1462515962(NAD 83)
AJ2436_MARKER: F = FLANGE-ENCASED ROD
AJ2436_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AJ2436_STAMPING: OKEEPORT 1989 1999
AJ2436_MARK LOGO: NGS
AJ2436_PROJECTION: FLUSH
AJ2436_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ2436_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ2436_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ2436+SATELLITE: SATELLITE OBSERVATIONS - February 26, 2002
AJ2436
AJ2436 HISTORY   - Date   Condition   Report By
AJ2436 HISTORY   - 1999   MONUMENTED   NGS
AJ2436 HISTORY   - 19990405 GOOD   GCYI
AJ2436 HISTORY   - 20010429 GOOD   FLDEP
AJ2436 HISTORY   - 20011115 GOOD   FLDEP
AJ2436 HISTORY   - 20020226 GOOD   MAPTEC
AJ2436
AJ2436   STATION DESCRIPTION
AJ2436
AJ2436'DESCRIBED BY G.C.Y., INCORPORATED 1999
AJ2436'THE LOGO CAP WAS RESET.
AJ2436
AJ2436   STATION RECOVERY (2001)
AJ2436
AJ2436'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (PBM)
AJ2436'RECOVERED IN GOOD CONDITION. NOTE--HEAVY MACHINERY HAD HIT ORIGINAL
AJ2436'MARK, SO THE ROD WAS BENT OUT STRAIGHT AND NEW LOGO CAP REPLACED. USE
AJ2436'THE ORIGINAL TO REACH FROM THE BENCH MARK OKEEPORT FOR RESET.
AJ2436
AJ2436   STATION RECOVERY (2001)
AJ2436
AJ2436'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
AJ2436'RECOVERED AS DESCRIBED.
AJ2436'
AJ2436
AJ2436   STATION RECOVERY (2002)
AJ2436
AJ2436'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
AJ2436'THE STATION IS LOCATED IN OKEECHOBEE, FLORIDA,OKEECHOBEE COUNTY
AJ2436'AT OKEECHOBEE AIRPORT. 28 MI. (45 KM) NNW OF INDIANTOWN, 2.3 MI. (3.68
AJ2436'KM) NNW OF OKEECHOBEE AND 37 MI. (59.6 KM) WEST OF STUART.
AJ2436'
AJ2436'TO REACH THE STATION FROM THE INTERSECTION OF HIGHWAY 70 AND
AJ2436'HIGHWAY 98 AT OKEECHOBEE FLORIDA, GO NORTHWEST ON HIGHWAY 98 TO
AJ2436' THE SECOND AIRPORT ENTRANCE ON THE RIGHT. GO NORTH TO TERMINAL
AJ2436'AND BEAR RIGHT, PAVEMENT ENDS, CONTINUE ON GRAVEL DRIVE TO POLE

```
 AJ2436'HANGER ON LEFT. GO LEFT ON GRASS TRAIL AND ACROSS TAXIWAY, THEN
 AJ2436'GO NORTHERLY (LEFT) ALONG TAXIWAY AND CROSS ANOTHER TAXIWAY TO
 AJ2436'THE STATION AHEAD.
 AJ2436'
 AJ2436'CONTACT AIRPORT MANAGER, ALEX MENDOZA , 863-467-5888,  FOR ENTRY
 AJ2436'
 AJ2436'
 AJ2436'THE STATION IS 28.0 M. (91.9 FT.) SOUTH OF SOUTH EDGE OF RUNWAY 13-31
 AJ2436'28.0 M. (91.9 FT.) WEST OF RUNWAY 22-4 AND 6.19 M. (20.3 FT.) EAST OF
 AJ2436'A
 AJ2436'LARGE DROP INLET. MARK IS A STAINLESS STEEL ROD IN SLEEVE WITH
 AJ2436'METAL COVER STAMPED OKEEPORT 1989
 AJ2436'
 AJ2436'
 AJ2436'
 AJ2436'
 AJ2436'

 *** retrieval complete.
 Elapsed Time = 00:00:00
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AJ7272 ***********************************************************************
 AJ7272  DESIGNATION -  Q 519                (CONTROL POINT)
 AJ7272  PID         -  AJ7272
 AJ7272  STATE/COUNTY-  FL/HENDRY
 AJ7272  USGS QUAD   -  SEARS (1973)
 AJ7272
 AJ7272                        *CURRENT SURVEY CONTROL
 AJ7272  ______________________________________________________________________
 AJ7272* NAD 83(2007)-  26 41 01.39797(N)    081 26 12.63777(W)     ADJUSTED
 AJ7272* NAVD 88     -         8.021  (meters)      26.32   (feet)  ADJUSTED
 AJ7272  ______________________________________________________________________
 AJ7272  EPOCH DATE  -        2002.00
 AJ7272  X           -     849,128.414 (meters)                     COMP
 AJ7272  Y           -  -5,639,123.259 (meters)                     COMP
 AJ7272  Z           -   2,846,940.041 (meters)                     COMP
 AJ7272  LAPLACE CORR-           0.22  (seconds)                    DEFLEC99
 AJ7272  ELLIP HEIGHT-         -16.430 (meters)          (02/10/07) ADJUSTED
 AJ7272  GEOID HEIGHT-         -24.46  (meters)                     GEOID03
 AJ7272  DYNAMIC HT  -           8.009 (meters)      26.28  (feet)  COMP
 AJ7272
 AJ7272  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AJ7272  Type    PID    Designation                      North   East  Ellip
 AJ7272  ----------------------------------------------------------------------
 AJ7272  NETWORK AJ7272 Q 519                             1.49   1.49   2.90
 AJ7272  ----------------------------------------------------------------------
 AJ7272  MODELED GRAV-     979,084.3   (mgal)                       NAVD 88
 AJ7272
 AJ7272  VERT ORDER  -  FIRST     CLASS II
 AJ7272
 AJ7272.The horizontal coordinates were established by GPS observations
 AJ7272.and adjusted by the National Geodetic Survey in February 2007.
 AJ7272
```

AJ7272.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AJ7272.See National Readjustment for more information.
AJ7272.The horizontal coordinates are valid at the epoch date displayed above.
AJ7272.The epoch date for horizontal control is a decimal equivalence
AJ7272.of Year/Month/Day.
AJ7272
AJ7272.The orthometric height was determined by differential leveling
AJ7272.and adjusted in February 2002.
AJ7272
AJ7272.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ7272
AJ7272.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ7272
AJ7272.The ellipsoidal height was determined by GPS observations
AJ7272.and is referenced to NAD 83.
AJ7272
AJ7272.The geoid height was determined by GEOID03.
AJ7272
AJ7272.The dynamic height is computed by dividing the NAVD 88
AJ7272.geopotential number by the normal gravity value computed on the
AJ7272.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ7272.degrees latitude (g = 980.6199 gals.).
AJ7272
AJ7272.The modeled gravity was interpolated from observed gravity values.
AJ7272

AJ7272;		North	East	Units	Scale Factor	Converg.
AJ7272;SPC FL E	-	260,436.574	156,522.775	MT	0.99996450	-0 11 46.2
AJ7272;SPC FL E	-	854,448.99	513,525.14	sFT	0.99996450	-0 11 46.2
AJ7272;UTM 17	-	2,951,479.696	456,537.610	MT	0.99962332	-0 11 46.2

AJ7272

AJ7272!	-	Elev Factor	x	Scale Factor	=	Combined Factor
AJ7272!SPC FL E	-	1.00000258	x	0.99996450	=	0.99996708
AJ7272!UTM 17	-	1.00000258	x	0.99962332	=	0.99962590

AJ7272
AJ7272 SUPERSEDED SURVEY CONTROL
AJ7272

AJ7272					
AJ7272 NAD 83(1999)-	26 41 01.39814(N)	081 26 12.63790(W)		AD( )	1
AJ7272 ELLIP H (12/12/02)	-16.442 (m)			GP( )	4 1
AJ7272 NAVD 88 (12/12/02)	8.02 (m)	26.3	(f)	LEVELING	3

AJ7272
AJ7272.Superseded values are not recommended for survey control.
AJ7272.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ7272.See file dsdata.txt to determine how the superseded data were derived.
AJ7272
AJ7272_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK5653851480(NAD 83)
AJ7272_MARKER: F = FLANGE-ENCASED ROD
AJ7272_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ7272_STAMPING: Q 519 2001 CERP
AJ7272_MARK LOGO: NONE
AJ7272_PROJECTION: RECESSED 29 CENTIMETERS
AJ7272_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ7272_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ7272_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ7272+SATELLITE: SATELLITE OBSERVATIONS - March 09, 2002
AJ7272_ROD/PIPE-DEPTH: 18.9 meters
AJ7272

AJ7272				
AJ7272 HISTORY	-	Date	Condition	Report By
AJ7272 HISTORY	-	200105	MONUMENTED	FOST
AJ7272 HISTORY	-	20020309	GOOD	MAPTEC

AJ7272
AJ7272 STATION DESCRIPTION

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 AJ7272
 AJ7272'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)
 AJ7272'THE MONUMENT IS LOCATED 5.3 MILES (8.53 KM) SOUTH OF LABELLE, FL AND
 AJ7272'9.7 MILES (15.61 KM) NORTH OF
 AJ7272'FELDA, FL. IN SECTION 4, TOWNSHIP 44 SOUTH, RANGE 29 EAST.
 AJ7272'
 AJ7272'OWNERSHIP IS THE FLORIDA DEPARTMENT OF TRANSPORTATION.
 AJ7272'
 AJ7272'TO REACH THE MONUMENT FROM THE INTERSECTION OF STATE ROAD 29 AND US
 AJ7272'HIGHWAY 80 IN LA BELLE, GO
 AJ7272'SOUTH 5.3 MILES (8.53 KM) ON STATE ROAD 29 AND THE MONUMENT IS ON THE
 AJ7272'WEST SIDE (RIGHT) OF THE
 AJ7272'ROAD. THE MONUMENT IS LOCATED 13.6 MILES (21.89 KM) NORTH OF THE
 AJ7272'JUNCTION OF STATE ROAD 29 AND
 AJ7272'STATE ROAD 82.
 AJ7272'
 AJ7272'THE MONUMENT IS 43.0 FEET (13.11 M) WEST OF THE CENTERLINE OF STATE
 AJ7272'ROAD 29, 107.7 FEET (32.83 M)
 AJ7272'NORTHWEST OF UTILITY POLE NO. 58620-7792-07 AND 11.0 FEET (3.35 M)
 AJ7272'EAST OF A CARSONITE WITNESS POST.
 AJ7272'NOTE ACCESS TO THE DATUM POINT (THE TOP OF A STAINLESS STEEL ROD) IS
 AJ7272'HAD THROUGH A 5 INCH LOGO
 AJ7272'CAP. NOTE A MAGNET WAS PLACED INSIDE THE PVC PIPE.
 AJ7272'
 AJ7272
 AJ7272                          STATION RECOVERY (2002)
 AJ7272
 AJ7272'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AJ7272'RECOVERED AS DESCRIBED
 AJ7272'

 *** retrieval complete.
 Elapsed Time = 00:00:00
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AJ7346  DESIGNATION -  Q 529           (CONTROL POINT)
 AJ7346  PID         -  AJ7346
 AJ7346  STATE/COUNTY-  FL/GLADES
 AJ7346  USGS QUAD   -  LAKE HICPOCHEE (1971)
 AJ7346
 AJ7346                        *CURRENT SURVEY CONTROL
 AJ7346  ______________________________________________________________________
 AJ7346* NAD 83(1999)-  26 50 25.22202(N)    081 11 44.29294(W)     ADJUSTED
 AJ7346* NAVD 88     -         6.114  (meters)      20.06   (feet)  ADJUSTED
 AJ7346  ______________________________________________________________________
 AJ7346  X           -     871,664.430 (meters)                     COMP
 AJ7346  Y           -  -5,627,774.994 (meters)                     COMP
 AJ7346  Z           -   2,862,433.501 (meters)                     COMP
 AJ7346  LAPLACE CORR-          -1.14  (seconds)                    DEFLEC99
 AJ7346  ELLIP HEIGHT-         -18.452 (meters)          (12/12/02) GPS OBS
 AJ7346  GEOID HEIGHT-         -24.53  (meters)                     GEOID03
 AJ7346  DYNAMIC HT  -           6.105 (meters)      20.03  (feet)  COMP
 AJ7346  MODELED GRAV-     979,118.0   (mgal)                       NAVD 88
 AJ7346
 AJ7346  HORZ ORDER  -  FIRST
 AJ7346  VERT ORDER  -  FIRST     CLASS II
 AJ7346  ELLP ORDER  -  SECOND    CLASS II
 AJ7346
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AJ7346.The horizontal coordinates were established by GPS observations
AJ7346.and adjusted by the National Geodetic Survey in December 2002.
AJ7346
AJ7346.The orthometric height was determined by differential leveling
AJ7346.and adjusted by the NATIONAL GEODETIC SURVEY in February 2002.
AJ7346
AJ7346.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ7346
AJ7346.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ7346
AJ7346.The ellipsoidal height was determined by GPS observations
AJ7346.and is referenced to NAD 83.
AJ7346
AJ7346.The geoid height was determined by GEOID03.
AJ7346
AJ7346.The dynamic height is computed by dividing the NAVD 88
AJ7346.geopotential number by the normal gravity value computed on the
AJ7346.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ7346.degrees latitude (g = 980.6199 gals.).
AJ7346
AJ7346.The modeled gravity was interpolated from observed gravity values.
AJ7346
AJ7346;   North   East   Units Scale Factor Converg.
AJ7346;SPC FL E   -   277,729.330   180,555.851   MT 0.99994584   -0 05 18.0
AJ7346;SPC FL E   -   911,183.64   592,373.65   sFT 0.99994584   -0 05 18.0
AJ7346;UTM 17   - 2,968,766.551   480,562.485   MT 0.99960466   -0 05 18.0
AJ7346
AJ7346!   - Elev Factor x Scale Factor =   Combined Factor
AJ7346!SPC FL E   -   1.00000290 x   0.99994584 =   0.99994874
AJ7346!UTM 17   -   1.00000290 x   0.99960466 =   0.99960756
AJ7346
AJ7346   SUPERSEDED SURVEY CONTROL
AJ7346
AJ7346 NAVD 88 (12/12/02)   6.11   (m)   20.0   (f) LEVELING   3
AJ7346
AJ7346.Superseded values are not recommended for survey control.
AJ7346.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ7346.See file dsdata.txt to determine how the superseded data were derived.
AJ7346
AJ7346_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK8056268767(NAD 83)
AJ7346_MARKER: DD = SURVEY DISK
AJ7346_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ7346_STAMPING: Q 529 2001 CERP
AJ7346_MARK LOGO: USE
AJ7346_PROJECTION: RECESSED 10 CENTIMETERS
AJ7346_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ7346_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ7346+STABILITY: SURFACE MOTION
AJ7346_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ7346+SATELLITE: SATELLITE OBSERVATIONS - April 25, 2002
AJ7346
AJ7346 HISTORY   - Date   Condition   Report By
AJ7346 HISTORY   - 20010524 MONUMENTED   EMCINC
AJ7346 HISTORY   - 20020425 GOOD   MAPTEC
AJ7346
AJ7346   STATION DESCRIPTION
AJ7346
AJ7346'DESCRIBED BY EMC INCORPORATED 2001 (MKC)
AJ7346'THE STATION IS LOCATED ABOUT 19.3 KILOMETERS (12.0 MILES) SOUTHEAST
AJ7346'OF PALMDALE, FLORIDA ABOUT 8.9 KILOMETERS (5.5 MILES) NORTHWEST OF
AJ7346'MOORE HAVEN, FLORIDA IN THE MEDIAN ON U.S. HIGHWAY 27.

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 AJ7346'LOCATED ON THE LAKE HICPOCHEE QUAD, SECTION 11, TOWNSHIP 42 SOUTH,
 AJ7346'RANGE 31 EAST.
 AJ7346'
 AJ7346'OWNERSHIP  FLDT
 AJ7346'
 AJ7346'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 78 AND
 AJ7346'U.S. HIGHWAY 27 ABOUT 1.6 KILOMETERS (1.0 MILE) WEST OF MOORE HAVEN,
 AJ7346'FLORIDA GO NORTHWEST ON U.S. HIGHWAY 27 FOR 7.58 KILOMETERS (4.7
 AJ7346'MILES)
 AJ7346'TO THE MARK ON LEFT IN THE MEDIAN.
 AJ7346'
 AJ7346'THE STATION IS 41.7 METERS (137.0 FEET) NORTHWEST OF THE SOUTHEAST
 AJ7346'END OF THE MEDIAN AT THE EDGE OF A CROSSOVER LANE IN MEDIAN, 19.2
 AJ7346'METERS (63.0 FEET) NORTHEAST OF THE CENTER OF THE SOUTHBOUND
 AJ7346'LANE OF U.S. HIGHWAY 27, 12.2 METERS (40.0 FEET) SOUTHEAST OF THE
 AJ7346'SOUTHEAST
 AJ7346'CORNER OF A CONCRETE CULVERT EXTENSION IN THE MEDIAN, 7.6 METERS
 AJ7346'(25.0 FEET) SOUTHWEST OF THE CENTER OF THE NORTHBOUND LANE OF
 AJ7346'U.S. HIGHWAY 27 AND 0.25 METERS (0.8 FEET) SOUTH OF A MAGNET BURIED
 AJ7346'0.1
 AJ7346'METERS (0.3 FEET) BELOW GROUND.
 AJ7346'
 AJ7346'
 AJ7346'
 AJ7346
 AJ7346                          STATION RECOVERY (2002)
 AJ7346
 AJ7346'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
 AJ7346'RECOVERED AS DESCRIBED.
 AJ7346'
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AJ8524 ***********************************************************************
 AJ8524  DESIGNATION -  R 543          (CONTROL POINT)
 AJ8524  PID         -  AJ8524
 AJ8524  STATE/COUNTY-  FL/MARTIN
 AJ8524  USGS QUAD   -  INDIAN TOWN NW (1983)
 AJ8524
 AJ8524                         *CURRENT SURVEY CONTROL
 AJ8524  ______________________________________________________________________
 AJ8524* NAD 83(1999)-  27 09 43.96798(N)    080 28 52.89710(W)     ADJUSTED
 AJ8524* NAVD 88     -         8.371  (meters)      27.46   (feet)  ADJUSTED
 AJ8524  ______________________________________________________________________
 AJ8524  X           -     939,075.727 (meters)                     COMP
 AJ8524  Y           -  -5,600,502.052 (meters)                     COMP
 AJ8524  Z           -   2,894,210.463 (meters)                     COMP
 AJ8524  LAPLACE CORR-          -1.57  (seconds)                    DEFLEC99
 AJ8524  ELLIP HEIGHT-         -18.632 (meters)          (12/09/02) GPS OBS
 AJ8524  GEOID HEIGHT-         -27.00  (meters)                     GEOID03
 AJ8524  DYNAMIC HT  -           8.358 (meters)      27.42  (feet)  COMP
 AJ8524  MODELED GRAV-     979,100.9   (mgal)                       NAVD 88
 AJ8524
 AJ8524  HORZ ORDER  -  A
 AJ8524  VERT ORDER  -  FIRST     CLASS II
 AJ8524  ELLP ORDER  -  FOURTH    CLASS I
 AJ8524
 AJ8524.The horizontal coordinates were established by GPS observations
 AJ8524.and adjusted by the National Geodetic Survey in December 2002.
 AJ8524
 AJ8524.The orthometric height was determined by differential leveling
 AJ8524.and adjusted by the NATIONAL GEODETIC SURVEY in May 2002.
 AJ8524
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AJ8524.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ8524
AJ8524.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ8524
AJ8524.The ellipsoidal height was determined by GPS observations
AJ8524.and is referenced to NAD 83.
AJ8524
AJ8524.The geoid height was determined by GEOID03.
AJ8524
AJ8524.The dynamic height is computed by dividing the NAVD 88
AJ8524.geopotential number by the normal gravity value computed on the
AJ8524.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ8524.degrees latitude (g = 980.6199 gals.).
AJ8524
AJ8524.The modeled gravity was interpolated from observed gravity values.
AJ8524
AJ8524;   North   East   Units Scale Factor Converg.
AJ8524;SPC FL E   -   313,483.214   251,400.845   MT 0.99997378   +0 14 12.4
AJ8524;SPC FL E   - 1,028,486.18   824,804.27   sFT 0.99997378   +0 14 12.4
AJ8524;UTM 17   - 3,004,508.236   551,383.307   MT 0.99963259   +0 14 12.4
AJ8524
AJ8524!   - Elev Factor x Scale Factor =   Combined Factor
AJ8524!SPC FL E   -   1.00000293 x   0.99997378 =   0.99997671
AJ8524!UTM 17   -   1.00000293 x   0.99963259 =   0.99963552
AJ8524
AJ8524|---|
AJ8524| PID   Reference Object   Distance   Geod. Az |
AJ8524| dddmmss.s |
AJ8524| AJ8513 J 543   53.333 METERS 21655 |
AJ8524|---|
AJ8524
AJ8524   SUPERSEDED SURVEY CONTROL
AJ8524
AJ8524 NAVD 88 (12/09/02)   8.37   (m)   27.5   (f) LEVELING   3
AJ8524
AJ8524.Superseded values are not recommended for survey control.
AJ8524.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ8524.See file dsdata.txt to determine how the superseded data were derived.
AJ8524
AJ8524_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL5138304508(NAD 83)
AJ8524_MARKER: F = FLANGE-ENCASED ROD
AJ8524_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ8524_STAMPING: R 543 2001 CERP
AJ8524_MARK LOGO: NONE
AJ8524_PROJECTION: RECESSED 6 CENTIMETERS
AJ8524_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ8524_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ8524_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8524+SATELLITE: SATELLITE OBSERVATIONS - October 24, 2004
AJ8524_ROD/PIPE-DEPTH: 24.4 meters
AJ8524
AJ8524 HISTORY   - Date   Condition   Report By
AJ8524 HISTORY   - 20010917 MONUMENTED   FOST
AJ8524 HISTORY   - 20020425 GOOD   MAPTEC
AJ8524 HISTORY   - 20021204 GOOD   MAPTEC
AJ8524 HISTORY   - 20021204 GOOD   MAPTEC
AJ8524 HISTORY   - 20041024 GOOD   FLDEP
AJ8524
AJ8524   STATION DESCRIPTION
AJ8524
AJ8524'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)

AJ8524'THE MONUMENT IS LOCATED 10.1 MILES (16.25 KM) NORTH OF INDIANTOWN, FL.
AJ8524'AND 14.0 MILES (22.53 KM) WEST
AJ8524'OF PALM CITY, FL., SECTION 18, TOWNSHIP 38 SOUTH, RANGE 39 EAST.
AJ8524'
AJ8524'OWNERSHIP IS MARTIN COUNTY RIGHT OF WAY.
AJ8524'
AJ8524'THE MONUMENT IS IN THE NORTHEAST QUADRANT OF THE INTERSECTION. TO
AJ8524'REACH THE MONUMENT FROM
AJ8524'THE INTERSECTION OF COUNTY ROAD 714 AND COUNTY ROAD 609, 11.1 MILES
AJ8524'(17.86 KM) WEST OF THE JUNCTION
AJ8524'OF THE FLORIDA TURNPIKE, STATE ROAD 714 AND COUNTY ROAD 714 IN PALM
AJ8524'CITY FL., GO EAST ON COUNTY
AJ8524'ROAD 714 FOR APPROXIMATELY 100 FEET (30.48 M) THEN TURN NORTH ON DIRT
AJ8524'ROAD. MONUMENT IS LOCATED
AJ8524'ON THE LEFT (WEST) BY SOUTHEAST FENCE CORNER POST.
AJ8524'
AJ8524'THE MONUMENT IS 4.8 FEET (1.46 M) SOUTH OF FENCE CORNER POST, 101.0
AJ8524'FEET 30.78 M) NORTH OF
AJ8524'CENTERLINE OF COUNTY ROAD 714, 81.0 FEET (24.69 M) WEST OF THE CENTER
AJ8524'OF A DIRT ROAD AND 4.0 FEET
AJ8524'(1.22 M) SOUTH OF CARSONITE WITNESS POST. NOTE ACCESS TO THE DATUM
AJ8524'POINT (TOP OF A STAINLESS
AJ8524'STEEL ROD) IS HAD THROUGH A 5 INCH LOGO CAP. NOTE A MAGNET WAS PLACED
AJ8524'INSIDE THE PVC PIPE.
AJ8524'
AJ8524
AJ8524   STATION RECOVERY (2002)
AJ8524
AJ8524'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ8524'THE MONUMENT WAS RECOVERED AS DESCRIBED IN L26245.
AJ8524'
AJ8524'
AJ8524'STATION RECOVERY (2002)
AJ8524'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AJ8524'RECOVERED AS DESCRIBED.
AJ8524'
AJ8524'
AJ8524
AJ8524   STATION RECOVERY (2002)
AJ8524
AJ8524'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (JB)
AJ8524'RECOVERED AS DESCRIBED WITH FOLLOWING CHANGE
AJ8524'
AJ8524'AT HIGHWAY 714 AT HIGHWAY 609. TAKE I 95 AND HIGHWAY 714 (EXIT 62)
AJ8524'PROCEED WEST ON
AJ8524'HIGHWAY 714 FOR 5.3 MILES TO STATION ON RIGHT.
AJ8524'
AJ8524
AJ8524   STATION RECOVERY (2002)
AJ8524
AJ8524'RECOVERY NOTE BY MAPTECH INCORPORATED 2002
AJ8524'RECOVERY NOTE BY CREECH ENGINEERS, INCORPORATED. - MELBOURNE 2006
AJ8524'(DTB) RECOVERED AS DESCRIBED.
AJ8524
AJ8524   STATION RECOVERY (2004)
AJ8524
AJ8524'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
AJ8524'RECOVERED AS DESCRIBED.

AJ6215 **********

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AJ6215  DESIGNATION -  S 191 W        (CONTROL POINT)
AJ6215  PID         -  AJ6215
AJ6215  STATE/COUNTY-  FL/OKEECHOBEE
AJ6215  USGS QUAD   -  OKEECHOBEE (1972)
AJ6215
AJ6215                        *CURRENT SURVEY CONTROL
AJ6215  ______________________________________________________________________
AJ6215* NAD 83(1999)-  27 11 32.21676(N)    080 45 47.17253(W)     ADJUSTED
AJ6215* NAVD 88     -        12.374  (meters)      40.60   (feet)  ADJUSTED
AJ6215  ______________________________________________________________________
AJ6215  X           -     911,281.222 (meters)                     COMP
AJ6215  Y           -  -5,603,553.818 (meters)                     COMP
AJ6215  Z           -   2,897,176.436 (meters)                     COMP
AJ6215  LAPLACE CORR-          -1.41  (seconds)                    DEFLEC99
AJ6215  ELLIP HEIGHT-         -14.303 (meters)          (12/12/02) GPS OBS
AJ6215  GEOID HEIGHT-         -26.70  (meters)                     GEOID03
AJ6215  DYNAMIC HT  -          12.355 (meters)      40.53  (feet)  COMP
AJ6215  MODELED GRAV-     979,090.1   (mgal)                       NAVD 88
AJ6215
AJ6215  HORZ ORDER  -  FIRST
AJ6215  VERT ORDER  -  FIRST     CLASS II
AJ6215  ELLP ORDER  -  FOURTH    CLASS I
AJ6215
AJ6215.The horizontal coordinates were established by GPS observations
AJ6215.and adjusted by the National Geodetic Survey in December 2002.
AJ6215
AJ6215.The orthometric height was determined by differential leveling
AJ6215.and adjusted by the NATIONAL GEODETIC SURVEY in January 2002.
AJ6215
AJ6215.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ6215
AJ6215.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ6215
AJ6215.The ellipsoidal height was determined by GPS observations
AJ6215.and is referenced to NAD 83.
AJ6215
AJ6215.The geoid height was determined by GEOID03.
AJ6215
AJ6215.The dynamic height is computed by dividing the NAVD 88
AJ6215.geopotential number by the normal gravity value computed on the
AJ6215.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6215.degrees latitude (g = 980.6199 gals.).
AJ6215
AJ6215.The modeled gravity was interpolated from observed gravity values.
AJ6215
AJ6215;                   North         East     Units Scale Factor Converg.
AJ6215;SPC FL E     -   316,730.834   223,471.672   MT  0.99994797   +0 06 29.7
AJ6215;SPC FL E     - 1,039,141.08    733,173.31    sFT  0.99994797   +0 06 29.7
AJ6215;UTM  17      - 3,007,754.749   523,463.664   MT  0.99960680   +0 06 29.7
AJ6215
AJ6215!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ6215!SPC FL E     -   1.00000225  x   0.99994797  =   0.99995022
AJ6215!UTM  17      -   1.00000225  x   0.99960680  =   0.99960905
AJ6215
AJ6215|-----------------------------------------------------------------------|
AJ6215| PID    Reference Object                    Distance      Geod. Az  |
AJ6215|                                                          dddmmss.s |
AJ6215| AB2501 S 191 E                          140.749 METERS 12218     |
AJ6215|-----------------------------------------------------------------------|
AJ6215
AJ6215                        SUPERSEDED SURVEY CONTROL
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AJ6215
AJ6215 NAVD 88 (12/12/02)   12.37   (m)   40.6   (f) LEVELING   3
AJ6215
AJ6215.Superseded values are not recommended for survey control.
AJ6215.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6215.See file dsdata.txt to determine how the superseded data were derived.
AJ6215
AJ6215_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL2346407755(NAD 83)
AJ6215_MARKER: DD = SURVEY DISK
AJ6215_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ6215_STAMPING: S 191 W BM
AJ6215_MARK LOGO: SFLWMD
AJ6215_PROJECTION: FLUSH
AJ6215_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ6215_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ6215_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6215+SATELLITE: SATELLITE OBSERVATIONS - 2002
AJ6215_ROD/PIPE-DEPTH: 21.9 meters
AJ6215
AJ6215 HISTORY   - Date   Condition   Report By
AJ6215 HISTORY   - UNK   MONUMENTED   SFLWMD
AJ6215 HISTORY   - 20010613 GOOD   EMCINC
AJ6215 HISTORY   - 2002   GOOD   MAPTEC
AJ6215
AJ6215   STATION DESCRIPTION
AJ6215
AJ6215'DESCRIBED BY EMC INCORPORATED 2001 (WJB)
AJ6215'THE STATION IS LOCATED APPROXIMATELY 7.9 KILOMETERS (4.9 MILES)
AJ6215'SOUTHEAST OF OKEECHOBEE, FLORIDA ON THE HERBERT HOOVER LEVEE,
AJ6215'APPROXIMATELY 0.08 KILOMETERS (0.05 MILES) WEST OF STRUCTURE S 191.
AJ6215'LOCATED ON THE OKEECHOBEE QUAD SECTION 6, TOWNSHIP 38 SOUTH,
AJ6215'RANGE 36 EAST.
AJ6215'OWNERSHIP SOUTH FLORIDA MANAGEMENT DISTRICT
AJ6215'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 78 AND
AJ6215'U.S. HIGHWAY 441/98 GO SOUTHEAST ON U.S. HIGHWAY 441/98 7.42
AJ6215'KILOMETERS (4.6 MILES) TO AN ASPHALT ACCESS ROAD TO S 191 ON RIGHT,
AJ6215'THENCE SOUTHWEST ON ACCESS ROAD 0.16 KILOMETERS (0.1 MILES) TO THE
AJ6215'TOP OF HERBERT HOOVER LEVEE AND A GATE ON LEFT, THENCE
AJ6215'SOUTHEAST 0.08 KILOMETERS (0.05 MILES) TO THE MARK ON RIGHT.
AJ6215'THE STATION IS 16.9 METERS (55.4 FEET) WEST OF THE SOUTHWEST
AJ6215'CORNER OF A CHAINLINK FENCE, 2.75 METERS (9.0 FEET) SOUTHWEST OF
AJ6215'THE CENTER OF ASPHALT ROAD ON LEVEE, O.5 METERS (1.6 FEET)
AJ6215'SOUTHWEST OF A STEEL GUARD RAIL AND 0.23 METERS (0.7 FEET)
AJ6215'NORTHEAST OF A CARSONITE WITNESS POST.
AJ6215'THE MARK IS A SOUTH FLORIDA WATER MANAGEMENT DISTRICT DISK SET
AJ6215'ON A STEEL ROD, LOCATED INSIDE A 4 INCH PVC COVER.
AJ6215'
AJ6215'
AJ6215
AJ6215   STATION RECOVERY (2002)
AJ6215
AJ6215'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (WJB)
AJ6215'RECOVERED AS DESCRIBED.
1   National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AD8247 ***
AD8247 DESIGNATION - S 2 27   **(CONTROL POINT)**
AD8247 PID   - AD8247
AD8247 STATE/COUNTY- FL/PALM BEACH
AD8247 USGS QUAD   - BELLE GLADE (1984)
AD8247
AD8247   *CURRENT SURVEY CONTROL

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AD8247  _____________________________________________________________________
AD8247* NAD 83(1999)-  26 42 01.72079(N)    080 42 58.41623(W)     ADJUSTED
AD8247* NAVD 88     -        13.276  (meters)      43.56   (feet)  ADJUSTED
AD8247  _____________________________________________________________________
AD8247  X           -     919,849.568 (meters)                     COMP
AD8247  Y           -  -5,627,179.004 (meters)                     COMP
AD8247  Z           -   2,848,600.867 (meters)                     COMP
AD8247  LAPLACE CORR-          -1.18  (seconds)                    DEFLEC99
AD8247  ELLIP HEIGHT-        -11.758 (meters)          (12/12/02) GPS OBS
AD8247  GEOID HEIGHT-        -25.05  (meters)                     GEOID03
AD8247  DYNAMIC HT  -         13.256 (meters)      43.49  (feet)  COMP
AD8247  MODELED GRAV-     979,107.7   (mgal)                       NAVD 88
AD8247
AD8247  HORZ ORDER  -  FIRST
AD8247  VERT ORDER  -  FIRST     CLASS II
AD8247  ELLP ORDER  -  FOURTH    CLASS I
AD8247
AD8247.The horizontal coordinates were established by GPS observations
AD8247.and adjusted by the National Geodetic Survey in December 2002.
AD8247
AD8247.The orthometric height was determined by differential leveling
AD8247.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
AD8247.WARNING-Repeat measurements at this control monument indicate possible
AD8247.vertical movement.
AD8247
AD8247.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD8247
AD8247.The Laplace correction was computed from DEFLEC99 derived deflections.
AD8247
AD8247.The ellipsoidal height was determined by GPS observations
AD8247.and is referenced to NAD 83.
AD8247
AD8247.The geoid height was determined by GEOID03.
AD8247
AD8247.The dynamic height is computed by dividing the NAVD 88
AD8247.geopotential number by the normal gravity value computed on the
AD8247.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8247.degrees latitude (g = 980.6199 gals.).
AD8247
AD8247.The modeled gravity was interpolated from observed gravity values.
AD8247
AD8247;                    North         East     Units Scale Factor Converg.
AD8247;SPC FL E     -   262,250.037   228,238.532   MT  0.99995102   +0 07 39.0
AD8247;SPC FL E     -   860,398.66    748,812.58   sFT  0.99995102   +0 07 39.0
AD8247;UTM  17      - 2,953,292.540   528,228.897   MT  0.99960984   +0 07 39.0
AD8247
AD8247!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD8247!SPC FL E     -   1.00000185  x   0.99995102  =   0.99995287
AD8247!UTM  17      -   1.00000185  x   0.99960984  =   0.99961169
AD8247
AD8247                          SUPERSEDED SURVEY CONTROL
AD8247
AD8247  NAVD 88 (12/12/02)   13.28   (m)           43.6    (f) LEVELING    3
AD8247  NGVD 29 (09/01/92)   13.706  (m)           44.97   (f) ADJUSTED    1 2
AD8247
AD8247.Superseded values are not recommended for survey control.
AD8247.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8247.See file dsdata.txt to determine how the superseded data were derived.
AD8247
AD8247_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK2822953293(NAD 83)
AD8247_MARKER: DD = SURVEY DISK
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AD8247_SETTING: 40 = SET IN A LARGE STRUCTURE WITH DEEP FOUNDATIONS
AD8247_SP_SET: RETAINING WALL
AD8247_STAMPING: S-2 27
AD8247_MARK LOGO: SFLWMD
AD8247_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8247_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
AD8247+STABILITY: POSITION/ELEVATION WELL
AD8247_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8247+SATELLITE: SATELLITE OBSERVATIONS - May 18, 2002
AD8247
AD8247 HISTORY   - Date   Condition   Report By
AD8247 HISTORY   - UNK   MONUMENTED   SFLWMD
AD8247 HISTORY   - 19920330 GOOD   NGS
AD8247 HISTORY   - 20000318 GOOD   FLDEP
AD8247 HISTORY   - 20020518 GOOD   MAPTEC
AD8247
AD8247   STATION DESCRIPTION
AD8247
AD8247'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8247'8.9 KM (5.55 MI) WESTERLY ALONG STATE HIGHWAY 80 FROM THE JUNCTION OF
AD8247'STATE HIGHWAY 880 IN BELLE GLADE, THENCE 0.4 KM (0.25 MI) NORTHERLY
AD8247'ALONG A PAVED ROAD TO THE TOP OF THE LAKE OKEECHOBEE LEVEE, THENCE
AD8247'2.4 KM (1.50 MI) NORTHERLY ALONG A LEVEE ROAD, IN TOP OF AND 0.5 M
AD8247'(1.6 FT) SOUTH OF THE NORTH END OF THE SOUTH CONCRETE RETAINING WALL
AD8247'OF PUMPING STATION NUMBER 2 AT THE HILLSBORO CANAL, 2.6 M (8.5 FT)
AD8247'WEST OF THE SOUTHWEST CORNER OF THE BUILDING, AND LEVEL WITH THE
AD8247'LEVEE.
AD8247
AD8247   STATION RECOVERY (2000)
AD8247
AD8247'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AD8247'THE MARK IS ABOUT 15.3 MI (24.6 KM) SOUTHWEST OF CANAL POINT, 4.0 MI
AD8247'(6.4 KM) WEST OF BELLE GLADE, 2.1 MI (3.4 KM) NORTHWEST OF SOUTH BAY,
AD8247'ON THE EAST SIDE OF LAKE OKEECHOBEE, IN ESTIMATED SECTION 35, TOWNSHIP
AD8247'43 SOUTH, RANGE 36 EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S.
AD8247'HIGHWAY 27 AND STATE ROAD 80 IN SOUTH BAY, GO NORTHERLY ON U.S.
AD8247'HIGHWAY 27 FOR 1.6 MI (2.6 KM) TO THE JUNCTION OF A PAVED LEVEE ROAD
AD8247'ON THE RIGHT, TURN RIGHT ON THE PAVED LEVEE ROAD AND GO NORTHEAST FOR
AD8247'0.15 MI (0.24 KM) TO THE ENTRANCE TO THE CITY OF SOUTH BAY MUNICIPAL
AD8247'BOAT RAMP ON THE LEFT, TURN LEFT ON THE ENTRANCE ROAD AND GO NORTH
AD8247'UPHILL FOR 0.05 MI (0.08 KM) TO THE TOP OF THE LAKE OKEECHOBEE LEVEE
AD8247'ROAD, TURN RIGHT ON THE LEVEE ROAD AND GO NORTHEAST FOR ABOUT 80.0 FT
AD8247'(24.4 M) TO A LOCKED GATE ACROSS THE LEVEE ROAD, PASSING THRU THE
AD8247'LOCKED GATE CONTINUE NORTHEAST ON THE LEVEE ROAD FOR 1.2 MI (1.9 KM)
AD8247'TO ANOTHER LOCKED GATE ACROSS THE LEVEE ROAD, PASSING THRU THE LOCKED
AD8247'GATE CONTINUE NORTHEAST FOR 0.25 MI (0.40 KM) TO PUMPING STATION
AD8247'NUMBER 2 (PS-2) AND THE MARK ON THE LEFT, SET IN TOP OF THE NORTH END
AD8247'OF THE SOUTH CONCRETE RETAINING WALL OF PUMPING STATION NUMBER 2 AT
AD8247'THE HILLSBORO CANAL FLUSH WITH THE RETAINING WALL AND LEVEL WITH THE
AD8247'LEVEE ROAD. LOCATED 1.6 FT (0.5 M) SOUTH OF THE NORTH END OF THE SOUTH
AD8247'CONCRETE RETAINING WALL AND 8.5 FT (2.6 M) WEST OF THE SOUTHWEST
AD8247'CORNER OF THE BUILDING.
AD8247
AD8247   STATION RECOVERY (2002)
AD8247
AD8247'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD8247'STATION RECOVERY (2002)
AD8247'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD8247'RECOVERED AS DESCRIBED.
AD8247'
AD8247'

1 National Geodetic Survey, Retrieval Date = JULY 25, 2007

AD8147 **
AD8147 DESIGNATION - S 410 X **(CONTROL POINT)**
AD8147 PID - AD8147
AD8147 STATE/COUNTY- FL/PALM BEACH
AD8147 USGS QUAD - NORTH OF LONE PALM (1979)
AD8147
AD8147 *CURRENT SURVEY CONTROL
AD8147 ____
AD8147* NAD 83(1999)- 26 21 16.72086(N) 080 47 29.55230(W) ADJUSTED
AD8147* NAVD 88 - 5.595 (meters) 18.36 (feet) ADJUSTED
AD8147 ____
AD8147 X - 915,189.355 (meters) COMP
AD8147 Y - -5,645,269.533 (meters) COMP
AD8147 Z - 2,814,314.701 (meters) COMP
AD8147 LAPLACE CORR- -0.22 (seconds) DEFLEC99
AD8147 ELLIP HEIGHT- -19.226 (meters) (12/09/02) GPS OBS
AD8147 GEOID HEIGHT- -24.80 (meters) GEOID03
AD8147 DYNAMIC HT - 5.586 (meters) 18.33 (feet) COMP
AD8147 MODELED GRAV- 979,063.2 (mgal) NAVD 88
AD8147
AD8147 HORZ ORDER - A
AD8147 VERT ORDER - FIRST CLASS II
AD8147 ELLP ORDER - FOURTH CLASS I
AD8147
AD8147.The horizontal coordinates were established by GPS observations
AD8147.and adjusted by the National Geodetic Survey in December 2002.
AD8147
AD8147.The orthometric height was determined by differential leveling
AD8147.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
AD8147
AD8147.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD8147
AD8147.The Laplace correction was computed from DEFLEC99 derived deflections.
AD8147
AD8147.The ellipsoidal height was determined by GPS observations
AD8147.and is referenced to NAD 83.
AD8147
AD8147.The geoid height was determined by GEOID03.
AD8147
AD8147.The dynamic height is computed by dividing the NAVD 88
AD8147.geopotential number by the normal gravity value computed on the
AD8147.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8147.degrees latitude (g = 980.6199 gals.).
AD8147
AD8147.The modeled gravity was interpolated from observed gravity values.
AD8147
AD8147; North East Units Scale Factor Converg.
AD8147;SPC FL E - 223,920.677 220,806.048 MT 0.99994652 +0 05 33.1
AD8147;SPC FL E - 734,646.42 724,427.84 sFT 0.99994652 +0 05 33.1
AD8147;UTM 17 - 2,914,976.258 520,798.950 MT 0.99960534 +0 05 33.1
AD8147
AD8147! - Elev Factor x Scale Factor = Combined Factor
AD8147!SPC FL E - 1.00000302 x 0.99994652 = 0.99994954
AD8147!UTM 17 - 1.00000302 x 0.99960534 = 0.99960836
AD8147
AD8147 SUPERSEDED SURVEY CONTROL
AD8147
AD8147 NAVD 88 (12/09/02) 5.59 (m) 18.3 (f) LEVELING 3
AD8147 NGVD 29 (09/01/92) 6.033 (m) 19.79 (f) ADJUSTED 1 2

AD8147
AD8147.Superseded values are not recommended for survey control.
AD8147.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8147.See file dsdata.txt to determine how the superseded data were derived.
AD8147
AD8147_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK2079914976(NAD 83)
AD8147_MARKER: F = FLANGE-ENCASED ROD
AD8147_SETTING: 15 = METAL ROD DRIVEN INTO GROUND. SEE TEXT FOR ADDITIONAL
AD8147+WITH SETTING: INFORMATION.
AD8147_SP_SET: STAINLESS STEEL ROD
AD8147_STAMPING: S 410 X 1992
AD8147_MARK LOGO: NGS
AD8147_PROJECTION: FLUSH
AD8147_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8147_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
AD8147_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8147+SATELLITE: SATELLITE OBSERVATIONS - October 05, 2004
AD8147_ROD/PIPE-DEPTH: 1.5 meters
AD8147
AD8147 HISTORY   - Date   Condition   Report By
AD8147 HISTORY   - 1992   MONUMENTED   NGS
AD8147 HISTORY   - 20020227 GOOD   MAPTEC
AD8147 HISTORY   - 20030930 GOOD   FLDEP
AD8147 HISTORY   - 20041005 GOOD   MCKIM
AD8147
AD8147   STATION DESCRIPTION
AD8147
AD8147'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8147'14.9 KM (9.25 MI) SOUTHERLY ALONG MIAMI CANAL ROAD AND THE WEST LEVEE
AD8147'ROAD OF THE MIAMI CANAL FROM THE POST OFFICE IN LAKE HARBOR, THENCE
AD8147'0.1 KM (0.05 MI) EASTERLY ALONG A PAVED ROAD, THENCE 23.9 KM (14.85
AD8147'MI) SOUTHERLY ALONG THE EAST LEVEE ROAD OF THE MIAMI CANAL, 7.4 M
AD8147'(24.3 FT) NORTHEAST OF AND LEVEL WITH THE CENTER OF THE ROAD, 1.8 M
AD8147'(5.9 FT) SOUTHEAST OF A UTILITY POLE, AND 0.5 M (1.6 FT) NORTHWEST OF
AD8147'A WITNESS POST. NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH
AD8147'LOGO CAP. THE ROAD WAS DRIVEN TO REFUSAL AND ANCHORED.
AD8147
AD8147   STATION RECOVERY (2002)
AD8147
AD8147'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
AD8147'RECOVERED AS DESCRIBED
AD8147'
AD8147'
AD8147'
AD8147'
AD8147
AD8147   STATION RECOVERY (2003)
AD8147
AD8147'RECOVERY NOTE BY FL DEPT OF ENV PRO 2003 (RWH)
AD8147'RECOVERY IN GOOD CONDITION EXCEPT, THE ROD WAS DRIVEN TO REFUSAL AND
AD8147'ANCHORED. NOT--THE ROAD WAS DRIVEN TO REFUSAL AND ANCHORED.
AD8147
AD8147   STATION RECOVERY (2004)
AD8147
AD8147'RECOVERY NOTE BY MCKIM AND CREED 2004 (BRH)
AD8147'RECOVERED IN GOOD CONDITION.
1   National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AD7277 ***
AD7277 CBN   - This is a Cooperative Base Network Control Station.
AD7277 DESIGNATION - STAR   **(CONTROL POINT)**
AD7277 PID   - AD7277

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AD7277  STATE/COUNTY-  FL/PALM BEACH
AD7277  USGS QUAD   -  PORT MAYACA (1971)
AD7277
AD7277                        *CURRENT SURVEY CONTROL
AD7277  ______________________________________________________________________
AD7277* NAD 83(1999)-  26 56 37.37697(N)    080 36 40.71721(W)     ADJUSTED
AD7277* NAVD 88     -        10.612  (meters)      34.82   (feet)  ADJUSTED
AD7277  ______________________________________________________________________
AD7277  X           -     928,167.816 (meters)                     COMP
AD7277  Y           -  -5,613,484.087 (meters)                     COMP
AD7277  Z           -   2,872,650.483 (meters)                     COMP
AD7277  LAPLACE CORR-          -2.24  (seconds)                    DEFLEC99
AD7277  ELLIP HEIGHT-         -15.398 (meters)          (12/09/02) GPS OBS
AD7277  GEOID HEIGHT-         -26.01  (meters)                     GEOID03
AD7277  DYNAMIC HT  -          10.595 (meters)      34.76  (feet)  COMP
AD7277  MODELED GRAV-     979,106.3   (mgal)                       NAVD 88
AD7277
AD7277  HORZ ORDER  -  A
AD7277  VERT ORDER  -  FIRST     CLASS II
AD7277  ELLP ORDER  -  FOURTH    CLASS I
AD7277
AD7277.The horizontal coordinates were established by GPS observations
AD7277.and adjusted by the National Geodetic Survey in December 2002.
AD7277
AD7277.The orthometric height was determined by differential leveling
AD7277.and adjusted by the NATIONAL GEODETIC SURVEY in January 2002.
AD7277
AD7277.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD7277
AD7277.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7277
AD7277.The ellipsoidal height was determined by GPS observations
AD7277.and is referenced to NAD 83.
AD7277
AD7277.The geoid height was determined by GEOID03.
AD7277
AD7277.The dynamic height is computed by dividing the NAVD 88
AD7277.geopotential number by the normal gravity value computed on the
AD7277.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7277.degrees latitude (g = 980.6199 gals.).
AD7277
AD7277.The modeled gravity was interpolated from observed gravity values.
AD7277
AD7277;                    North         East     Units Scale Factor Converg.
AD7277;SPC FL E     -   289,227.280   238,596.444   MT  0.99995956   +0 10 34.0
AD7277;SPC FL E     -   948,906.50    782,795.17   sFT  0.99995956   +0 10 34.0
AD7277;UTM  17      - 2,980,260.578   538,583.275   MT  0.99961838   +0 10 34.0
AD7277
AD7277!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD7277!SPC FL E     -   1.00000242  x   0.99995956  =   0.99996198
AD7277!UTM  17      -   1.00000242  x   0.99961838  =   0.99962080
AD7277
AD7277:                Primary Azimuth Mark                    Grid Az
AD7277:SPC FL E     -  STAR AZ MK                              006 10 28.1
AD7277:UTM  17      -  STAR AZ MK                              006 10 28.1
AD7277
AD7277|---------------------------------------------------------------------|
AD7277| PID    Reference Object                    Distance      Geod. Az  |
AD7277|                                                          dddmmss.s |
AD7277| AD8091 STAR AZ MK                         454.109 METERS 0062102.1 |
AD7277| CW9830 STAR RM 1                            8.826 METERS 00839     |
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AD7277| AD7274 SAND CUT MIGRATORY CAMP TANK        APPROX. 3.4 KM 1812651.5 |
AD7277| CW9831 STAR RM 2                            8.157 METERS 18516     |
AD7277| AJ6237 S 525                               68.210 METERS 18607     |
AD7277| AD7328 CANAL POINT TANK                    APPROX. 8.9 KM 1915904.2 |
AD7277| AD7314 PAHOKEE SE MUN TANK                 APPROX.15.0 KM 1955251.8 |
AD7277| AD7321 PAHOKEE FLA HIGHWAY PATROL MST      APPROX.12.6 KM 1975713.0 |
AD7277| AD7317 PAHOKEE MUN TANK                    APPROX.14.3 KM 2021832.9 |
AD7277|-------------------------------------------------------------------|
AD7277
AD7277                          SUPERSEDED SURVEY CONTROL
AD7277
AD7277  NAD 83(1999)-  26 56 37.37697(N)    080 36 40.71721(W) AD(       ) B
AD7277  ELLIP H (05/31/01)  -15.231  (m)                       GP(       ) 5 1
AD7277  NAD 83(1990)-  26 56 37.37568(N)    080 36 40.71647(W) AD(       ) B
AD7277  ELLIP H (09/13/90)  -15.212  (m)                       GP(       ) 4 1
AD7277  NAD 83(1986)-  26 56 37.37940(N)    080 36 40.72464(W) AD(       ) 1
AD7277  NAD 27      -  26 56 36.17438(N)    080 36 41.52369(W) AD(       ) 1
AD7277  NAVD 88 (12/09/02)   10.61   (m)           34.8    (f) LEVELING    3
AD7277  NGVD 29 (07/19/86)   11.0    (m)           36.     (f) VERT ANG
AD7277
AD7277.Superseded values are not recommended for survey control.
AD7277.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7277.See file dsdata.txt to determine how the superseded data were derived.
AD7277
AD7277_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK3858380261(NAD 83)
AD7277_MARKER: DS = TRIANGULATION STATION DISK
AD7277_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AD7277_SP_SET: CONCRETE POST
AD7277_STAMPING: STAR 1970
AD7277_MARK LOGO: CGS
AD7277_PROJECTION: FLUSH
AD7277_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7277_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD7277+STABILITY: SURFACE MOTION
AD7277_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7277+SATELLITE: SATELLITE OBSERVATIONS - April 17, 2002
AD7277
AD7277  HISTORY     - Date     Condition        Report By
AD7277  HISTORY     - 1970     MONUMENTED       NGS
AD7277  HISTORY     - 1970     GOOD             NGS
AD7277  HISTORY     - 19850615 GOOD             NGS
AD7277  HISTORY     - 19890403 GOOD             NGS
AD7277  HISTORY     - 19920421 GOOD             KEISCH
AD7277  HISTORY     - 19920610 GOOD             ADRGS
AD7277  HISTORY     - 19941028 GOOD             SFLWMD
AD7277  HISTORY     - 20010615 GOOD             EMCINC
AD7277  HISTORY     - 20020212 GOOD             NGS
AD7277  HISTORY     - 20020417 GOOD             MAPTEC
AD7277
AD7277                          STATION DESCRIPTION
AD7277
AD7277'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970 (CLH)
AD7277'THE STATION IS LOCATED 6 MILES NORTH-NORTHEAST OF CANAL POINT, 1/2
AD7277'MILE SOUTH OF THE MARTIN COUNTY LINE, ON THE WEST EDGE OF PORT
AD7277'MAYACA, ON THE EAST EDGE OF LAKE OKEECHOBEE, LOCATED ON A LEVEE
AD7277'THAT BELONGS TO THE U.S. GOVERNMENT.
AD7277'
AD7277'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAY 76 AND U.S.
AD7277'HIGHWAYS 98 AND 441 IN THE TOWN OF PORT MAYACA, GO NORTH ON U.S.
AD7277'HIGHWAYS 98 AND 441 FOR 0.05 MILE TO A LEVEE ROAD ON THE LEFT.
AD7277'TURN LEFT AND GO SOUTHEAST THEN SOUTH ON LEVEE FOR 0.3 MILE TO A
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AD7277'LOCKED GATE. PASS THROUGH GATE AND GO SOUTH ON THE LEVEE FOR
AD7277'1.65 MILES TO THE AZIMUTH MARK ON THE RIGHT. CONTINUE ON LEVEE FOR
AD7277'0.3 MILE TO THE STATION ON THE RIGHT AS DESCRIBED.
AD7277'
AD7277'ALL MARKS ARE STANDARD DISKS SET IN ROUND CONCRETE POSTS WHICH ARE
AD7277'FLUSH WITH THE GROUND SURFACE.
AD7277'
AD7277'STATION MARK IS STAMPED STAR 1970. IT IS 28.3 FEET NORTH OF A
AD7277'METAL WITNESS POST, 30.8 FEET SOUTH OF A METAL WITNESS POST, 10
AD7277'FEET WEST OF THE CENTER OF LEVEE AND 2.3 FEET SOUTHWEST OF A METAL
AD7277'WITNESS POST.
AD7277'
AD7277'REFERENCE MARK 1 IS STAMPED STAR NO 1 1970. IT IS 27.8 FEET NORTH
AD7277'OF A METAL WITNESS POST, 8 FEET WEST OF CENTER OF LEVEE AND 1.8 FEET
AD7277'SOUTH OF A METAL WITNESS POST.
AD7277'
AD7277'REFERENCE MARK 2 IS STAMPED STAR NO 2 1970. IT IS 28 FEET SOUTH OF
AD7277'METAL WITNESS POST, 9 FEET WEST OF CENTER OF LEVEE AND 1.9 FEET
AD7277'NORTHEAST OF A METAL WITNESS POST.
AD7277'
AD7277'AZIMUTH MARK IS STAMPED STAR 1970. IT IS 7 FEET WEST OF CENTER OF
AD7277'LEVEE AND 2 FEET SOUTHEAST OF A METAL WITNESS POST.
AD7277
AD7277   STATION RECOVERY (1970)
AD7277
AD7277'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
AD7277'RECOVERED IN GOOD CONDITION.
AD7277
AD7277   STATION RECOVERY (1985)
AD7277
AD7277'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1985 (CLN)
AD7277'STATION MARK, REFERENCE MARKS 1, 2 AND AZIMUTH MARK WERE RECOVERED IN
AD7277'GOOD CONDITION. APPROXIMATELY 15 INCHES OF ROCK FILL HAS BEEN ADDED TO
AD7277'THE TOP OF LEVEE AND THE STATION AND REFERENCE MARKS ARE NOW BELOW
AD7277'SURFACE OF LEVEE SHOULDER. THE DISTANCE AND DIRECTION CHECKED TO ALL
AD7277'MARKS. STATION WAS VISITED DUE TO SURVEYORS IN QUESTION IF THE AZIMUTH
AD7277'MARK HAD BEEN HIT AND MOVED. THE BEARING CHECKED USING THE CANAL POINT
AD7277'WATER TANK FINIAL AS INITIAL. THE AZIMUNTH MARK WAS MEASURED TO AND
AD7277'POSITIONED AT THIS TIME. DUE TO CHANGES, A COMPLETE NEW DESCRIPTION
AD7277'FOLLOWS. THE STATION IS LOCATED ABOUT 9.60 KM (5.95 MI)
AD7277'NORTH-NORTHEAST OF CANAL POINT, 0.80 KM (0.50 MI) SOUTH OF THE MARTIN
AD7277'COUNTY LINE, ON THE WEST EDGE OF PORT MAYACA, ON THE EAST EDGE OF LAKE
AD7277'OKEECHOBEE, LOCATED ON A LEVEE ON US GOVERNMENT PROPERTY. TO REACH THE
AD7277'STATION FROM WHERE STATE HIGHWAY 710 BRIDGE PASSES OVER STATE HIGHWAY
AD7277'76 AT THE SOUTHEAST SIDE OF INDIANTOWN, GO WESTERLY ON STATE HIGHWAY
AD7277'76 FOR 16.48 KM (10.25 MI) TO THE OVER PASS AT PORT MAYACA. KEEP RIGHT
AD7277'OFF STATE HIGHWAY 76 AND FOLLOW SERVICE ROAD WEST AND SOUTH FOR 0.48
AD7277'KM (0.30 MI) TO LEVEE AND LOCKED GATE. PASS THROUGH OR AROUND GATE AND
AD7277'FOLLOW LEVEE SOUTH FOR 4.00 KM (2.50 MI) TO AZIMUTH MARK ON RIGHT.
AD7277'CONTINUE SOUTH FOR 0.48 KM (0.30 MI) TO STATION ON RIGHT. THE STATION
AD7277'IS A STANDARD CGS DISK STAMPED,--STAR 1970--, SET INTO THE TOP OF A
AD7277'ROUND CONCRETE MONUMENT, 30 CM (12 IN) IN DIAMETER, RECESSED 46 CM (18
AD7277'IN) BELOW THE GROUND. THE STATION IS LOCATED 8.84 METERS (29.00 FT)
AD7277'SOUTH OF A METAL WITNESS POST, 8.14 METERS (26.71 FT) NORTH OF A METAL
AD7277'WITNESS POST, 3.05 METERS (10.01 FT) WEST OF THE CENTER OF LEVEE, 0.64
AD7277'METERS (2.10 FT) NORTH OF A METAL WITNESS POST, 0.61 METERS (2.00 FT)
AD7277'NORTHEAST OF A METAL WITNESS POST. AZIMUTH MARK NO 1 IS A STANDARD CGS
AD7277'DISK STAMPED,--STAR 1970--, IS SET INTO A ROUND CONCRETE POST 30 CM
AD7277'(12 IN) ON SIDE, FLUSH WITH THE GROUND. THE STATION IS LOCATED 2.13
AD7277'METERS (6.99 FT) WEST OF THE CENTER OF LEVEE, 0.61 METERS (2.00 FT)
AD7277'SOUTHEAST OF A METAL WITNESS POST, 1.22 METERS (4.00 FT) EAST OF A

AD7277'METAL WITNESS POST. TO REACH THE AZIMUTH MARK FROM STATION, GO NORTH
AD7277'ON LEVEE 0.48 KM (0.30 MI) TO MARK ON LEFT. REFERENCE MARK NO 1 IS A
AD7277'STANDARD CGS DISK STAMPED,--STAR NO 1 1970--, IS SET INTO A ROUND
AD7277'CONCRETE POST 30 CM (12 IN) ON SIDE, RECESSED 30 CM (12 IN) BELOW THE
AD7277'GROUND. THE STATION IS LOCATED 9.20 METERS (30.18 FT) NORTH OF A METAL
AD7277'WITNESS POST, 2.44 METERS (8.01 FT) WEST OF THE CENTER OF LEVEE, 0.76
AD7277'METERS (2.49 FT) EAST OF A METAL WITNESS POST. REFERENCE MARK NO 2 IS
AD7277'A STANDARD CGS DISK STAMPED,--STAR NO 2 1970--, IS SET INTO A ROUND
AD7277'CONCRETE POST 30 CM (12 IN) ON SIDE, RECESSED 30 CM (12 IN) BELOW THE
AD7277'GROUND. THE STATION IS LOCATED 7.75 METERS (25.43 FT) SOUTH OF A METAL
AD7277'WITNESS POST, 2.74 METER (8.99 FT) WEST OF THE CENTER OF LEVEE ROAD,
AD7277'0.58 METERS (1.90 FT) EAST-SOUTHEAST OF A MET.
AD7277
AD7277 STATION RECOVERY (1989)
AD7277
AD7277'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1989
AD7277'THE STATION, REFERENCE MARK 1, REFERENCE MARK 2, AND THE AZIMUTH MARK
AD7277'WERE RECOVERED IN GOOD CONDITION. THE AZIMUTH MARK IS 455.6 M
AD7277'(1494.7 FT) NORTH OF THE STATION AND 2.4 M (7.9 FT) WEST OF THE
AD7277'APPROXIMATE CENTER OF THE LEVEE ROAD.
AD7277'THE STATION IS LOCATED ABOUT 9.7 KM (6.05 MI) NORTH-NORTHEAST OF CANAL
AD7277'POINT, 1.5 KM (0.95 MI) SOUTH OF THE MARTIN COUNTY LINE, AT THE WEST
AD7277'EDGE OF PORT MAYACA, AT THE EAST EDGE OF LAKE OKEECHOBEE, ABOUT 4.6 KM
AD7277'(2.85 MI) SOUTH OF THE ST. LUCIE CANAL, ON TOP OF A LEVEE BUILT BY THE
AD7277'U.S. ARMY CORPS OF ENGINEERS. OWNERSHIP--U.S. GOVERNMENT. LOCAL
AD7277'CONTACT FOR KEY TO GATE IS DARREL, AT THE DAM CONSTRUCTION OFFICE
AD7277'LOCATED NORTH-NORTHWEST OF THE GATE. PHONE NUMBER IS 407-924-2051.
AD7277'ALSO, MR. TORO (USE) AT CLEWISTON FL CAN BE CONTACTED AT 813-983-8101.
AD7277'TO REACH THE STATION FROM THE JUNCTION OF STATE ROUTE 76 AND U.S.
AD7277'HIGHWAY 441, LOCATED ABOUT 19.4 KM (12.05 MI) NORTH OF POHOKEE, AND
AD7277'ABOUT 0.96 KM (0.60 MI) SOUTH OF THE SOUTH END OF HIGHWAY 441 BRIDGE
AD7277'OVER THE ST. LUCIE CANAL, GO WEST AND NORTH ALONG STATE ROUTE 76 FOR
AD7277'0.96 KM (0.60 MI) TO WHERE THE HIGHWAY CROSSES UNDER U.S. HIGHWAY 441
AD7277'OVERPASS BRIDGE, THEN GO SHARP LEFT ALONG AN ASPHALT ROAD LEADING WEST
AD7277'TO THE LEVEE, AND GO WEST AND SOUTH ALONG THE ROAD AND THE TOP OF THE
AD7277'LEVEE FOR 0.48 KM (0.30 MI) TO A LOCKED GATE,
AD7277'(CONSTRUCTION OFFICE FOR KEY IS LOCATED ABOUT 0.48 KM (0.30 MI)
AD7277'NORTH-NORTHWEST OF THIS GATE), THEN GO SOUTH ALONG THE TOP OF LEVEE,
AD7277'ALONG LEVEE ROAD, FOR 4.1 KM (2.55 MI) TO THE STATION ON THE RIGHT, AT
AD7277'THREE METAL WITNESS POSTS.
AD7277'THE STATION IS RECESSED 46 CM BELOW GROUND. LOCATED 3 M (9.8 FT) WEST
AD7277'OF THE APPROXIMATE CENTER OF THE LEVEE ROAD, 0.5 M (1.6 FT) NORTHEAST
AD7277'OF A METAL WITNESS POST, 0.61 M (2.0 FT) NORTH-NORTHWEST OF A
AD7277'FIBERGLASS WITNESS POST, 8.2 M (26.9 FT) NORTH OF REFERENCE MARK 2, 9
AD7277'M (29.5 FT) SOUTH OF REFERENCE MARK 1 AND ABOUT 46 CM BELOW THE LEVEL
AD7277'OF THE LEVEE ROAD.
AD7277'DESCRIBED BY G.F. SMITH.
AD7277
AD7277 STATION RECOVERY (1992)
AD7277
AD7277'RECOVERY NOTE BY KEITH AND SCHNARS - LAKELAND 1992
AD7277'RECOVERED IN GOOD CONDITION.
AD7277
AD7277 STATION RECOVERY (1992)
AD7277
AD7277'RECOVERY NOTE BY ADR GEODETIC SERVICES 1992
AD7277'RECOVERED IN GOOD CONDITION.
AD7277
AD7277 STATION RECOVERY (1994)
AD7277
AD7277'RECOVERY NOTE BY S FL WATER MGMT DIST 1994 (MEH)

AD7277'THE STATION IS ABOUT 25.0 MI (40.2 KM) SOUTHEAST OF OKEECHOBEE IN
AD7277'SECTION 2, TOWNSHIP 41 SOUTH, RANGE 37 EAST. TO REACH THE STATION
AD7277'FROM THE INTERSECTION OF STATE ROAD 70 (PARK AVENUE) AND U.S. HIGHWAY
AD7277'98, U.S. HIGHWAY 441 (PARROTT AVENUE) IN OKEECHOBEE, GO SOUTH ON U.S.
AD7277'HIGHWAY 98 AND U.S. HIGHWAY 441 FOR 3.15 MI (5.07 KM) TO THE JUNCTION
AD7277'OF STATE ROAD 78 ON THE RIGHT AND U.S. HIGHWAY 98 AND U.S. HIGHWAY
AD7277'441 ON THE LEFT, TURN LEFT ON U.S. HIGHWAY 98 AND U.S. HIGHWAY 441
AD7277'AND GO SOUTHEASTERLY FOR 12.35 MI (19.87 KM) TO THE OKEECHOBEE AND
AD7277'MARTIN COUNTY LINE, CONTINUE SOUTHEASTERLY ON U.S. HIGHWAY 98 AND
AD7277'U.S. HIGHWAY 441 FOR 10.65 MI (17.14 KM) TO THE JUNCTION OF STATE
AD7277'ROAD 76 ON THE RIGHT, TURN RIGHT ON STATE ROAD 76 AND GO NORTHERLY FOR
AD7277'0.45 MI (0.72 KM) TO THE JUNCTION OF A PAVED ROAD ON THE LEFT, TURN
AD7277'LEFT ON THE PAVED ROAD AND GO WEST FOR 0.35 MI (0.56 KM) TO THE TOP OF
AD7277'THE LEVEE, GO SOUTH-SOUTHEAST ON THE LEVEE FOR 0.05 MI (0.08 KM) TO A
AD7277'LOCKED GATE, PASSING THROUGH THE GATE, CONTINUE SOUTH-SOUTHEAST ON TOP
AD7277'OF THE LEVEE FOR 2.7 MI (4.3 KM) TO THE STATION ON THE RIGHT SET IN
AD7277'THE TOP OF A ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND. LOCATED
AD7277'10.8 FT (3.3 M) WEST OF THE CENTER OF A DIM ROAD, 3.3 FT (1.0 M) WEST
AD7277'OF A CARSONITE WITNESS POST AND 1.8 FT (0.5 M) NORTHEAST OF A METAL
AD7277'WITNESS PLAQUE. NOTE FOR KEY CONTACT RUTH ANN KATILIUS, SOUTH FLORIDA
AD7277'WATER MANAGEMENT DISTRICT, WEST PALM BEACH, FL. PHONE (407) 686-8800.
AD7277
AD7277   STATION RECOVERY (2001)
AD7277
AD7277'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
AD7277'THE STATION WAS RECOVERED BY DESCRIPTION.
AD7277'
AD7277
AD7277   STATION RECOVERY (2002)
AD7277
AD7277'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
AD7277'RECOVERED AS DESCRIBED WITH THE FOLLOWING CHANGES.
AD7277'
AD7277'LOCATED +/- 4 MILES SOUTH OF LOCK AND DAM AT PORT MAYACA.
AD7277'
AD7277'CARSONITE WITNESS POST HAS BEEN REMOVED. STATION IS 68.3 M (224
AD7277'FT) NORTH OF BENCH MARK S 525. KEY CONTACT RUTH ANN KATILIUS,
AD7277'SOUTH FLORIDA WATER MANAGEMENT DISTRICT, 3301 GUN CLUB ROAD,
AD7277'WEST PALM BEACH, FL. PHONE 561-682-6122.
AD7277'
AD7277'
AD7277'
AD7277'
AD7277
AD7277   STATION RECOVERY (2002)
AD7277
AD7277'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD7277'STATION RECOVERY (2002)
AD7277'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD7277'RECOVERED AS DESCRIBED.
AD7277'
AD7277'
1   National Geodetic Survey,   Retrieval Date = JULY 25, 2007

AJ3482 ***
AJ3482 DESIGNATION - V 486   **(CONTROL POINT)**
AJ3482 PID   - AJ3482
AJ3482 STATE/COUNTY- FL/PALM BEACH
AJ3482 USGS QUAD   - SOUTH OF OKEELANTA (1974)
AJ3482

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AJ3482                         *CURRENT SURVEY CONTROL
AJ3482 ______________________________________________________________________
AJ3482* NAD 83(1999)-  26 29 31.27309(N)    080 39 31.00979(W)     ADJUSTED
AJ3482* NAVD 88     -         5.870  (meters)      19.26   (feet)  ADJUSTED
AJ3482 ______________________________________________________________________
AJ3482  X           -     927,184.762 (meters)                     COMP
AJ3482  Y           -  -5,636,447.907 (meters)                     COMP
AJ3482  Z           -   2,827,945.102 (meters)                     COMP
AJ3482  LAPLACE CORR-          -0.65  (seconds)                    DEFLEC99
AJ3482  ELLIP HEIGHT-        -19.107 (meters)          (12/12/02) GPS OBS
AJ3482  GEOID HEIGHT-        -24.94  (meters)                     GEOID03
AJ3482  DYNAMIC HT  -          5.861 (meters)      19.23  (feet)  COMP
AJ3482  MODELED GRAV-     979,083.8   (mgal)                       NAVD 88
AJ3482
AJ3482  HORZ ORDER  -  FIRST
AJ3482  VERT ORDER  -  SECOND    CLASS I
AJ3482  ELLP ORDER  -  FOURTH    CLASS I
AJ3482
AJ3482.The horizontal coordinates were established by GPS observations
AJ3482.and adjusted by the National Geodetic Survey in December 2002.
AJ3482
AJ3482.The orthometric height was determined by differential leveling
AJ3482.and adjusted by the NATIONAL GEODETIC SURVEY in September 2001.
AJ3482
AJ3482.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ3482
AJ3482.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ3482
AJ3482.The ellipsoidal height was determined by GPS observations
AJ3482.and is referenced to NAD 83.
AJ3482
AJ3482.The geoid height was determined by GEOID03.
AJ3482
AJ3482.The dynamic height is computed by dividing the NAVD 88
AJ3482.geopotential number by the normal gravity value computed on the
AJ3482.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ3482.degrees latitude (g = 980.6199 gals.).
AJ3482
AJ3482.The modeled gravity was interpolated from observed gravity values.
AJ3482
AJ3482;                    North         East     Units Scale Factor Converg.
AJ3482;SPC FL E     -   239,168.673   234,033.289   MT  0.99995547   +0 09 08.2
AJ3482;SPC FL E     -   784,672.55    767,824.22   sFT  0.99995547   +0 09 08.2
AJ3482;UTM  17      - 2,930,219.051   534,021.677   MT  0.99961429   +0 09 08.2
AJ3482
AJ3482!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ3482!SPC FL E     -   1.00000300  x   0.99995547  =   0.99995847
AJ3482!UTM  17      -   1.00000300  x   0.99961429  =   0.99961729
AJ3482
AJ3482                          SUPERSEDED SURVEY CONTROL
AJ3482
AJ3482  NAVD 88 (12/12/02)    5.87   (m)           19.3    (f) LEVELING    3
AJ3482
AJ3482.Superseded values are not recommended for survey control.
AJ3482.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ3482.See file dsdata.txt to determine how the superseded data were derived.
AJ3482
AJ3482_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK3402230219(NAD 83)
AJ3482_MARKER: F = FLANGE-ENCASED ROD
AJ3482_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ3482_STAMPING: V 486 2000
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AJ3482_MARK LOGO: NGS
AJ3482_PROJECTION: FLUSH
AJ3482_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ3482_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ3482_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ3482+SATELLITE: SATELLITE OBSERVATIONS - November 22, 2004
AJ3482_ROD/PIPE-DEPTH: 3.7 meters
AJ3482
AJ3482 HISTORY   - Date   Condition   Report By
AJ3482 HISTORY   - 2000   MONUMENTED   FLDEP
AJ3482 HISTORY   - 20020528 GOOD   MAPTEC
AJ3482 HISTORY   - 20041122 GOOD   WEIDEN
AJ3482
AJ3482   STATION DESCRIPTION
AJ3482
AJ3482'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ3482'THE MARK IS ABOUT 26.0 MI (41.8 KM) SOUTHWEST OF SOUTH BAY ON LEVEE
AJ3482'19, IN SECTION 5, TOWNSHIP 46 SOUTH, RANGE 37 EAST. TO REACH THE MARK
AJ3482'FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 80 IN SOUTH BAY,
AJ3482'GO SOUTH ON U.S. HIGHWAY 27 FOR 3.8 MI (6.1 KM) TO THE JUNCTION OF
AJ3482'COUNTY ROAD 827, CONTINUE SOUTH ON U.S. HIGHWAY 27 FOR 1.05 MI (1.69
AJ3482'KM) TO A CONCRETE BRIDGE ON THE LEFT OVER THE NORTH NEW RIVER CANAL,
AJ3482'TURN LEFT CROSSING OVER THE BRIDGE TO THE EAST END AND THE JUNCTION OF
AJ3482'LEVEE 19 PARALELLING THE NORTH NEW RIVER CANAL, TURN RIGHT ON LEVEE 19
AJ3482'AND GO SOUTH FOR 8.1 MI (13.0 KM) TO THE MARK ON THE RIGHT, A
AJ3482'STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF 12.0 FT (3.7 M)
AJ3482'WITH A NGS LOGO CAP FLUSH WITH THE GROUND AND LEVEL WITH THE LEVEE
AJ3482'ROAD, THE DATUM POINT IS RECESSED 0.5 FT (15.2 CM) BELOW THE LEVEL OF
AJ3482'THE NGS LOGO CAP. LOCATED 25.0 FT (7.6 M) SOUTHWEST OF THE APPROXIMATE
AJ3482'CENTERLINE OF THE LEVEE ROAD, 2.3 FT (0.7 M) NORTHWEST OF A 3-INCH PVC
AJ3482'PIPE AND 1.0 FT (0.3 M) NORTHEAST OF A CARSONITE WITNESS POST. NOTE
AJ3482'ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.
AJ3482
AJ3482   STATION RECOVERY (2002)
AJ3482
AJ3482'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ3482'STATION RECOVERY (2002)
AJ3482'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AJ3482'RECOVERED AS DESCRIBED.
AJ3482'
AJ3482'
AJ3482
AJ3482   STATION RECOVERY (2004)
AJ3482
AJ3482'RECOVERY NOTE BY WEIDENER SURVEYING AND MAPPING 2004
AJ3482'RECOVERED AS DESCRIBED
1   National Geodetic Survey,   Retrieval Date = JULY 25, 2007

The NGS Data SheetSee file dsdata.txt for more information about the
datasheet.DATABASE = ,PROGRAM = datasheet, VERSION = 7.59
1   National Geodetic Survey,   Retrieval Date = APRIL 8, 2008
 DE5380 ***
 DE5380 DESIGNATION - Y 555   **(CONTROL POINT)**
 DE5380 PID   - DE5380
 DE5380 STATE/COUNTY- FL/PALM BEACH
 DE5380 USGS QUAD   - SHAWANO (1979)

DE5380
DE5380 *CURRENT SURVEY CONTROL
DE5380 ____
DE5380* NAD 83(1986)- 26 35 56. (N) 080 32 43. (W) SCALED
DE5380* NAVD 88 - 3.109 (meters) 10.20 (feet) ADJUSTED
DE5380 ____
DE5380 GEOID HEIGHT- -25.12 (meters) GEOID03
DE5380 DYNAMIC HT - 3.104 (meters) 10.18 (feet) COMP
DE5380 MODELED GRAV- 979,100.3 (mgal) NAVD 88
DE5380
DE5380 VERT ORDER - FIRST CLASS II
DE5380
DE5380.The horizontal coordinates were scaled from a topographic map and have
DE5380.an estimated accuracy of +/- 6 seconds.
DE5380
DE5380.The orthometric height was determined by differential leveling
DE5380.and adjusted in June 2002.
DE5380
DE5380.The geoid height was determined by GEOID03.
DE5380
DE5380.The dynamic height is computed by dividing the NAVD 88
DE5380.geopotential number by the normal gravity value computed on the
DE5380.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DE5380.degrees latitude (g = 980.6199 gals.).
DE5380
DE5380.The modeled gravity was interpolated from observed gravity values.
DE5380
DE5380; North East Units Estimated Accuracy
DE5380;SPC FL E - 251,040. 245,290. MT (+/- 180 meters Scaled)
DE5380
DE5380 SUPERSEDED SURVEY CONTROL
DE5380
DE5380.No superseded survey control is available for this station.
DE5380
DE5380_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK452420(NAD 83)
DE5380_MARKER: DD = SURVEY DISK
DE5380_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DE5380_STAMPING: Y 555 2001
DE5380_MARK LOGO: FLDEP
DE5380_PROJECTION: RECESSED 10 CENTIMETERS
DE5380_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DE5380_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DE5380+STABILITY: SURFACE MOTION
DE5380_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DE5380+SATELLITE: SATELLITE OBSERVATIONS - October 30, 2001
DE5380
DE5380 HISTORY - Date Condition Report By
DE5380 HISTORY - 20011030 MONUMENTED FLDEP
DE5380
DE5380 STATION DESCRIPTION
DE5380
DE5380'DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)
DE5380'THE MARK IS ABOUT 10.0 MI SOUTHEAST OF BELLE GLADE, ON THE SOUTHWEST
DE5380'SIDE OF BROWN'S
DE5380'FARM ROAD (STATE ROAD 827), IN SECTION 33, TOWNSHIP 44 SOUTH, RANGE 38
DE5380'EAST.
DE5380'
DE5380'TO REACH THE MARK FROM THE JUNCTION OF STATE HIGHWAY 80 (SOUTH MAIN
DE5380'STREET) AND STATE HIGHWAY 880 (MARTIN LUTHER KING JR BOULEVARD,
DE5380'SOUTHEAST AVENUE E) IN BELLE GLADE, GO EASTERLY ON STATE ROAD 880
DE5380'(MARTIN LUTHER KING JR BOULEVARD, SOUTHEAST AVENUE E) FOR 0.5 MI TO A

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DE5380'SIGNAL LIGHT AT A Y-JUNCTION, BEAR RIGHT AND GO SOUTHEAST ON STATE
DE5380'ROAD 880 (STATE ROAD 80) FOR 5.4 MI TO THE JUNCTION OF BROWN'S FARM
DE5380'ROAD (STATE ROAD 827) ON THE RIGHT (JUST BEFORE REACHING A BRIDGE OVER
DE5380'THE HILLSBORO CANAL AT SIXMILE BEND), BEAR RIGHT ON BROWN'S FARM ROAD
DE5380'(STATE ROAD 827) AND GO SOUTHEASTERLY ALONG THE SOUTHWEST SIDE OF THE
DE5380'HILLSBORO CANAL FOR 1.4 MI TO THE JUNCTION OF THE BOLLES CANAL (LEVEE
DE5380'L-16) ON THE RIGHT, CONTINUE SOUTHWEST ON BROWN'S FARM ROAD (STATE
DE5380'ROAD 827) FOR 2.6 MI TO THE JUNCTION OF A SUGAR CANE FIELD FARM ROAD
DE5380'ON THE RIGHT AND THE MARK ON THE
DE5380'RIGHT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT RECESSED 0.4 FT
DE5380'BELOW THE LEVEL OF THE GROUND AND 1.0 FT BELOW THE LEVEL OF BROWN'S
DE5380'FARM ROAD (STATE ROAD 827).
DE5380'
DE5380'LOCATED 83.0 FT NORTHWEST OF THE APPROXIMATE CENTERLINE OF THE
DE5380'ENTRANCE TO A SUGAR CANE FIELD, 63.0 FT SOUTHWEST OF THE APPROXIMATE
DE5380'CENTERLINE OF BROWN'S FARM ROAD, 20.7 FT SOUTHWEST OF THE MOST
DE5380'NORTHWEST CONCRETE POST OF A LINE OF CONCRETE POSTS AND 1.2 FT EAST OF
DE5380'A CARSONITE WITNESS POST.
DE5380'
DE5380'NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE
DE5380'MONUMENT.
DE5380'

*** retrieval complete.
Elapsed Time = 00:00:00
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AJ6800 ************************************************************************
AJ6800  DESIGNATION -  Y 530              (CONTROL POINT)
AJ6800  PID         -  AJ6800
AJ6800  STATE/COUNTY-  FL/HENDRY
AJ6800  USGS QUAD   -  ROCKY LAKE STRAND (1974)
AJ6800
AJ6800                        *CURRENT SURVEY CONTROL
AJ6800  ______________________________________________________________________
AJ6800* NAD 83(1999)-  26 27 32.60151(N)    081 07 28.89820(W)     ADJUSTED
AJ6800* NAVD 88     -         7.285  (meters)      23.90   (feet)  ADJUSTED
AJ6800  ______________________________________________________________________
AJ6800  X           -     881,555.616 (meters)                     COMP
AJ6800  Y           -  -5,645,413.959 (meters)                     COMP
AJ6800  Z           -   2,824,676.642 (meters)                     COMP
AJ6800  LAPLACE CORR-          -0.80  (seconds)                    DEFLEC99
AJ6800  ELLIP HEIGHT-         -17.337 (meters)          (12/09/02) GPS OBS
AJ6800  GEOID HEIGHT-         -24.63  (meters)                     GEOID03
AJ6800  DYNAMIC HT  -           7.273 (meters)      23.86  (feet)  COMP
AJ6800  MODELED GRAV-     979,063.5   (mgal)                       NAVD 88
AJ6800
AJ6800  HORZ ORDER  -  A
AJ6800  VERT ORDER  -  FIRST     CLASS II
AJ6800  ELLP ORDER  -  FOURTH    CLASS I
AJ6800
AJ6800.The horizontal coordinates were established by GPS observations
AJ6800.and adjusted by the National Geodetic Survey in December 2002.
AJ6800
AJ6800.The orthometric height was determined by differential leveling
AJ6800.and adjusted by the NATIONAL GEODETIC SURVEY in January 2002.
AJ6800.No vertical observational check was made to the station.
AJ6800
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AJ6800.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ6800
AJ6800.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ6800
AJ6800.The ellipsoidal height was determined by GPS observations
AJ6800.and is referenced to NAD 83.
AJ6800
AJ6800.The geoid height was determined by GEOID03.
AJ6800
AJ6800.The dynamic height is computed by dividing the NAVD 88
AJ6800.geopotential number by the normal gravity value computed on the
AJ6800.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6800.degrees latitude (g = 980.6199 gals.).
AJ6800
AJ6800.The modeled gravity was interpolated from observed gravity values.
AJ6800
AJ6800;   North   East   Units Scale Factor Converg.
AJ6800;SPC FL E   -   235,477.395   187,565.573   MT 0.99994308   -0 03 20.0
AJ6800;SPC FL E   -   772,562.09   615,371.38   sFT 0.99994308   -0 03 20.0
AJ6800;UTM 17   - 2,926,529.032   487,569.815   MT 0.99960191   -0 03 20.0
AJ6800
AJ6800!   - Elev Factor x Scale Factor =   Combined Factor
AJ6800!SPC FL E   -   1.00000272 x   0.99994308 =   0.99994580
AJ6800!UTM 17   -   1.00000272 x   0.99960191 =   0.99960463
AJ6800
AJ6800   SUPERSEDED SURVEY CONTROL
AJ6800
AJ6800 NAVD 88 (12/09/02)   7.29   (m)   23.9   (f) LEVELING   3
AJ6800
AJ6800.Superseded values are not recommended for survey control.
AJ6800.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6800.See file dsdata.txt to determine how the superseded data were derived.
AJ6800
AJ6800_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK8757026529(NAD 83)
AJ6800_MARKER: F = FLANGE-ENCASED ROD
AJ6800_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ6800_STAMPING: Y 530 2001 CERP
AJ6800_MARK LOGO: NONE
AJ6800_PROJECTION: RECESSED 15 CENTIMETERS
AJ6800_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6800_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ6800_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6800+SATELLITE: SATELLITE OBSERVATIONS - April 26, 2002
AJ6800_ROD/PIPE-DEPTH: 17.0 meters
AJ6800
AJ6800 HISTORY   - Date   Condition   Report By
AJ6800 HISTORY   - 20010530 MONUMENTED   EMCINC
AJ6800 HISTORY   - 20020227 GOOD   MAPTEC
AJ6800 HISTORY   - 20020426 GOOD   MAPTEC
AJ6800
AJ6800   STATION DESCRIPTION
AJ6800
AJ6800'DESCRIBED BY EMC INCORPORATED 2001 (CHP)
AJ6800'THE MARK IS LOCATED ABOUT 42.0 KILOMETERS (26.0 MILES) SOUTH
AJ6800'SOUTHWEST OF MOORE HAVEN, FLORIDA ABOUT 32.2 KILOMETERS (20.0
AJ6800'MILES) EAST OF IMMOKALEE, FLORIDA, NEAR THE INTERSECTION OF COUNTY
AJ6800'ROAD 833 AND COUNTY ROAD 846. LOCATED ON THE CROWS NEST HAMMOCK
AJ6800'QUAD, SECTION 27, TOWNSHIP 46 SOUTH, RANGE 32 EAST.
AJ6800'
AJ6800'OWNERSHIP FLDT
AJ6800'

AJ6800'TO REACH THE MARK FROM THE INTERSECTION OF COUNTY ROAD 833
AJ6800'AND COUNTY ROAD 846 ABOUT 32.2 KILOMETERS (20.0 MILES) EAST OF
AJ6800'IMMOKALEE, FLORIDA GO SOUTH ON COUNTY ROAD 846 0.16 KILOMETERS
AJ6800'(0.1 MILES) TO THE MARK ON THE RIGHT (WEST) IN THE RIGHT OF WAY OF
AJ6800'COUNTY ROAD 846.
AJ6800'
AJ6800'THE MARK IS 15.6 METERS (51.2 FEET) WEST OF THE CENTER OF COUNTY
AJ6800'ROAD 846, 9.1 METERS (29.7 FEET) NORTH OF A POWER POLE NUMBER 2170,
AJ6800'0.2 METERS (0.7 FEET) SOUTH SOUTHEAST OF A CARSONITE WITNESS POST
AJ6800'SET IN A NORTH-SOUTH FENCE.
AJ6800'THE MARK IS A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT 17.06
AJ6800'METERS, LOCATED INSIDE A 5-INCH LOGO COVER, RECESSED 15
AJ6800'CENTIMETERS. A MAGNET WAS PLACED INSIDE THE LOGO COVER.
AJ6800'
AJ6800'
AJ6800'
AJ6800
AJ6800   STATION RECOVERY (2002)
AJ6800
AJ6800'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
AJ6800'RECOVERED AS DESCRIBED
AJ6800'
AJ6800'
AJ6800'
AJ6800
AJ6800   STATION RECOVERY (2002)
AJ6800
AJ6800'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CP)
AJ6800'THE MARK IS LOCATED ABOUT 42.0 KILOMETERS (26.0 MILES) SOUTH
AJ6800'SOUTHWEST OF MOORE HAVEN, FLORIDA ABOUT 32.2 KILOMETERS (20.0
AJ6800'MILES) EAST OF IMMOKALEE, FLORIDA, NEAR THE INTERSECTION OF COUNTY
AJ6800'ROAD 833 AND COUNTY ROAD 846. LOCATED ON THE CROWS NEST HAMMOCK
AJ6800'QUAD, SECTION 27, TOWNSHIP 46 SOUTH, RANGE 32 EAST.
AJ6800'
AJ6800'OWNERSHIP FLDT
AJ6800'
AJ6800'TO REACH THE MARK FROM THE INTERSECTION OF COUNTY ROAD 833
AJ6800'AND COUNTY ROAD 846 ABOUT 32.2 KILOMETERS (20.0 MILES) EAST OF
AJ6800'IMMOKALEE, FLORIDA GO SOUTH ON COUNTY ROAD 846 0.16 KILOMETERS
AJ6800'(0.1 MILES) TO THE MARK ON THE RIGHT (WEST) IN THE RIGHT OF WAY OF
AJ6800'COUNTY ROAD 846.
AJ6800'
AJ6800'THE MARK IS 15.6 METERS (51.2 FEET) WEST OF THE CENTER OF COUNTY
AJ6800'ROAD 846, 9.1 METERS (29.7 FEET) NORTH OF A POWER POLE NUMBER 2170,
AJ6800'0.2 METERS (0.7 FEET) SOUTH SOUTHEAST OF A CARSONITE WITNESS POST
AJ6800'SET IN A NORTH-SOUTH FENCE.
AJ6800'THE MARK IS A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT 17.06
AJ6800'METERS, LOCATED INSIDE A 5-INCH LOGO COVER, RECESSED 15
AJ6800'CENTIMETERS. A MAGNET WAS PLACED INSIDE THE LOGO COVER.
AJ6800'
AJ6800'STATION RECOVERY (2002)
AJ6800'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AJ6800'RECOVERED AS DESCRIBED.
AJ6800'
AJ6800'
AJ6800'
1   National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AJ6791 ***
AJ6791 DESIGNATION - Y 535   **(CONTROL POINT)**
AJ6791 PID   - AJ6791
AJ6791 STATE/COUNTY- FL/HENDRY

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AJ6791  USGS QUAD    -  GODDENS STRAND (1974)
AJ6791
AJ6791                          *CURRENT SURVEY CONTROL
AJ6791  ______________________________________________________________________
AJ6791* NAD 83(1999)-  26 19 18.04566(N)    080 58 38.36320(W)     ADJUSTED
AJ6791* NAVD 88     -         5.113  (meters)      16.77   (feet)  ADJUSTED
AJ6791  ______________________________________________________________________
AJ6791  X           -     897,133.921 (meters)                     COMP
AJ6791  Y           -  -5,649,807.291 (meters)                     COMP
AJ6791  Z           -   2,811,041.311 (meters)                     COMP
AJ6791  LAPLACE CORR-          -0.11  (seconds)                    DEFLEC99
AJ6791  ELLIP HEIGHT-         -19.699 (meters)          (12/12/02) GPS OBS
AJ6791  GEOID HEIGHT-         -24.81  (meters)                     GEOID03
AJ6791  DYNAMIC HT  -           5.105 (meters)      16.75  (feet)  COMP
AJ6791  MODELED GRAV-     979,043.2   (mgal)                       NAVD 88
AJ6791
AJ6791  HORZ ORDER  -  FIRST
AJ6791  VERT ORDER  -  FIRST     CLASS II
AJ6791  ELLP ORDER  -  SECOND    CLASS II
AJ6791
AJ6791.The horizontal coordinates were established by GPS observations
AJ6791.and adjusted by the National Geodetic Survey in December 2002.
AJ6791
AJ6791.The orthometric height was determined by differential leveling
AJ6791.and adjusted by the NATIONAL GEODETIC SURVEY in January 2002.
AJ6791
AJ6791.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ6791
AJ6791.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ6791
AJ6791.The ellipsoidal height was determined by GPS observations
AJ6791.and is referenced to NAD 83.
AJ6791
AJ6791.The geoid height was determined by GEOID03.
AJ6791
AJ6791.The dynamic height is computed by dividing the NAVD 88
AJ6791.geopotential number by the normal gravity value computed on the
AJ6791.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6791.degrees latitude (g = 980.6199 gals.).
AJ6791
AJ6791.The modeled gravity was interpolated from observed gravity values.
AJ6791
AJ6791;                    North         East     Units Scale Factor Converg.
AJ6791;SPC FL E     -   220,251.954   202,264.006   MT  0.99994124   +0 00 36.2
AJ6791;SPC FL E     -   722,609.95    663,594.49    sFT  0.99994124   +0 00 36.2
AJ6791;UTM  17      - 2,911,308.786   502,263.234   MT  0.99960006   +0 00 36.2
AJ6791
AJ6791!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ6791!SPC FL E     -   1.00000309  x   0.99994124  =   0.99994433
AJ6791!UTM  17      -   1.00000309  x   0.99960006  =   0.99960315
AJ6791
AJ6791                          SUPERSEDED SURVEY CONTROL
AJ6791
AJ6791  NAVD 88 (12/12/02)    5.11   (m)           16.8    (f) LEVELING    3
AJ6791
AJ6791.Superseded values are not recommended for survey control.
AJ6791.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6791.See file dsdata.txt to determine how the superseded data were derived.
AJ6791
AJ6791_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK0226311309(NAD 83)
AJ6791_MARKER: F = FLANGE-ENCASED ROD
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AJ6791_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ6791_STAMPING: Y 535 2001 CERP
AJ6791_MARK LOGO: NONE
AJ6791_PROJECTION: RECESSED 5 CENTIMETERS
AJ6791_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6791_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ6791_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6791+SATELLITE: SATELLITE OBSERVATIONS - 2002
AJ6791_ROD/PIPE-DEPTH: 24.4 meters
AJ6791
AJ6791 HISTORY   - Date   Condition   Report By
AJ6791 HISTORY   - 20010725 MONUMENTED   MOREKL
AJ6791 HISTORY   - 2002   GOOD   MAPTEC
AJ6791
AJ6791   STATION DESCRIPTION
AJ6791
AJ6791'DESCRIBED BY MORGAN AND EKLUND INC 2001 (MAB)
AJ6791'THE STATION IS LOCATED ABOUT 56.8 KM (35.3 MILES) WEST NORTHWEST OF
AJ6791'ANDYTOWN, ABOUT 41.1
AJ6791'KM (25.6 MILES) NORTHEAST OF MILES CITY, ABOUT 48.3 KM (30.0 MILES)
AJ6791'SOUTH OF CLEWISTON, IN
AJ6791'SECTION 7, TOWNSHIP 48 SOUTH, RANGE 34 EAST.
AJ6791'
AJ6791'OWNERSHIP   SOUTH FLORIDA WATER MANAGEMENT DISTRICT (CANAL RIGHT OF
AJ6791'WAY)
AJ6791'
AJ6791'TO REACH THE STATION FROM THE JUNCTION OF SNAKE ROAD AND INTERSTATE 75
AJ6791'(EXIT 14), GO
AJ6791'WEST ON INTERSTATE 75 FOR 3.7 KM (2.3 MILES) TO THE EAST END OF BRIDGE
AJ6791'NO. 030283, TURN
AJ6791'RIGHT ON ACCESS ROAD (UNIMPROVED DIRT ROAD) JUST BEFORE THE CREST OF
AJ6791'THE BRIDGE, GO
AJ6791'0.08 KM (0.05 MILES) CURVING TO THE LEFT, TO THE JUNCTION WITH L-28
AJ6791'LEVEE ROAD (EAST SIDE OF
AJ6791'INTERCEPTOR CANAL), PROCEED NORTH ALONG L-28 LEVEE ROAD (MARL ROAD)
AJ6791'FOR 18.0 KM (11.2
AJ6791'MILES) TO THE JUNCTION OF COUNTY ROAD 833 (SNAKE ROAD), CONTINUE NORTH
AJ6791'ALONG L-28 LEVEE
AJ6791'ROAD FOR 1.3 KM (0.8 MILES) AND THE MARK ON THE RIGHT.
AJ6791'
AJ6791'THE MARK IS ON THE EAST SIDE OF NORTH FEEDER CANAL, 28.1 METERS (92.1
AJ6791'FEET) WEST OF A
AJ6791'WOOD FENCE POST WITH A RED PLASTIC TAB NAILED IN TOP, 14.0 METERS
AJ6791'(45.8 FEET) EAST OF THE
AJ6791'EAST TOP OF BANK OF NORTH FEEDER CANAL, 8.0 METERS (26.3 FEET)
AJ6791'NORTHWEST OF A 14 INCH
AJ6791'CABBAGE PALM, 3.8 METERS (12.6 FEET) WEST OF A CARSONITE WITNESS POST
AJ6791'AND THE WEST TOE
AJ6791'OF A NORTH-SOUTH SPOIL PILE. ACCESS TO THE DATUM POINT (TOP OF A
AJ6791'STAINLESS STEEL ROD) IS
AJ6791'HAD THROUGH A 5 INCH LOGO CAP.
AJ6791'
AJ6791'NOTE   A MAGNET WAS PLACED INSIDE THE PVC ENCASEMENT.
AJ6791'
AJ6791'
AJ6791
AJ6791   STATION RECOVERY (2002)
AJ6791
AJ6791'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ6791'THE STATION IS LOCATED ABOUT 56.8 KM (35.3 MILES) WEST NORTHWEST OF
AJ6791'ANDYTOWN, ABOUT 41.1

AJ6791'KM (25.6 MILES) NORTHEAST OF MILES CITY, ABOUT 48.3 KM (30.0 MILES)
AJ6791'SOUTH OF CLEWISTON, IN
AJ6791'SECTION 7, TOWNSHIP 48 SOUTH, RANGE 34 EAST.
AJ6791'
AJ6791'OWNERSHIP   SOUTH FLORIDA WATER MANAGEMENT DISTRICT (CANAL RIGHT OF
AJ6791'WAY)
AJ6791'
AJ6791'TO REACH THE STATION FROM THE JUNCTION OF SNAKE ROAD AND INTERSTATE 75
AJ6791'(EXIT 14), GO
AJ6791'WEST ON INTERSTATE 75 FOR 3.7 KM (2.3 MILES) TO THE EAST END OF BRIDGE
AJ6791'NO. 030283, TURN
AJ6791'RIGHT ON ACCESS ROAD (UNIMPROVED DIRT ROAD) JUST BEFORE THE CREST OF
AJ6791'THE BRIDGE, GO
AJ6791'0.08 KM (0.05 MILES) CURVING TO THE LEFT, TO THE JUNCTION WITH L-28
AJ6791'LEVEE ROAD (EAST SIDE OF
AJ6791'INTERCEPTOR CANAL), PROCEED NORTH ALONG L-28 LEVEE ROAD (MARL ROAD)
AJ6791'FOR 18.0 KM (11.2
AJ6791'MILES) TO THE JUNCTION OF COUNTY ROAD 833 (SNAKE ROAD), CONTINUE NORTH
AJ6791'ALONG L-28 LEVEE
AJ6791'ROAD FOR 1.3 KM (0.8 MILES) AND THE MARK ON THE RIGHT.
AJ6791'
AJ6791'THE MARK IS ON THE EAST SIDE OF NORTH FEEDER CANAL, 28.1 METERS (92.1
AJ6791'FEET) WEST OF A
AJ6791'WOOD FENCE POST WITH A RED PLASTIC TAB NAILED IN TOP, 14.0 METERS
AJ6791'(45.8 FEET) EAST OF THE
AJ6791'EAST TOP OF BANK OF NORTH FEEDER CANAL, 8.0 METERS (26.3 FEET)
AJ6791'NORTHWEST OF A 14 INCH
AJ6791'CABBAGE PALM, 3.8 METERS (12.6 FEET) WEST OF A CARSONITE WITNESS POST
AJ6791'AND THE WEST TOE
AJ6791'OF A NORTH-SOUTH SPOIL PILE. ACCESS TO THE DATUM POINT (TOP OF A
AJ6791'STAINLESS STEEL ROD) IS
AJ6791'HAD THROUGH A 5 INCH LOGO CAP.
AJ6791'
AJ6791'NOTE   A MAGNET WAS PLACED INSIDE THE PVC ENCASEMENT.
AJ6791'
AJ6791'STATION RECOVERY (2002)
AJ6791'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AJ6791'RECOVERED AS DESCRIBED.
AJ6791'
AJ6791'
1   National Geodetic Survey,   Retrieval Date = JULY 25, 2007

5 ~ VERTICAL CONTROL DATA SHEETS – HHD-LAKE OKEECHOBEE AREA ~ 5

1
AD8145 ***
AD8145 DESIGNATION - B 49   **(TRANSFERRED TO CP1058)**
AD8145 PID   - AD8145
AD8145 STATE/COUNTY- FL/BROWARD
AD8145 USGS QUAD   - NORTH OF LONE PALM (1979)
AD8145
AD8145   *CURRENT SURVEY CONTROL
AD8145 ____
AD8145* NAD 83(1986)- 26 19 55.   (N)   080 46 26.   (W)   SCALED
AD8145* NAVD 88   -   6.686 (meters)   21.94   (feet) ADJUSTED
AD8145 ____
AD8145 GEOID HEIGHT-   -24.80 (meters)   GEOID03
AD8145 DYNAMIC HT -   6.675 (meters)   21.90 (feet) COMP
AD8145 MODELED GRAV-   979,062.1   (mgal)   NAVD 88
AD8145
AD8145 VERT ORDER - FIRST   CLASS II
AD8145
AD8145.The horizontal coordinates were scaled from a topographic map and have
AD8145.an estimated accuracy of +/- 6 seconds.
AD8145
AD8145.The orthometric height was determined by differential leveling
AD8145.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
AD8145
AD8145.The geoid height was determined by GEOID03.
AD8145
AD8145.The dynamic height is computed by dividing the NAVD 88
AD8145.geopotential number by the normal gravity value computed on the
AD8145.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8145.degrees latitude (g = 980.6199 gals.).
AD8145
AD8145.The modeled gravity was interpolated from observed gravity values.
AD8145
AD8145;   North   East   Units Estimated Accuracy
AD8145;SPC FL E   -   221,410.   222,570.   MT (+/- 180 meters Scaled)
AD8145
AD8145   SUPERSEDED SURVEY CONTROL
AD8145
AD8145 NGVD 29 (09/01/92)   7.124 (m)   23.37   (f) ADJUSTED   1 2
AD8145
AD8145.Superseded values are not recommended for survey control.
AD8145.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8145.See file dsdata.txt to determine how the superseded data were derived.
AD8145
AD8145_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK225124(NAD 83)
AD8145_MARKER: DD = SURVEY DISK
AD8145_SETTING: 37 = SET IN A MASSIVE RETAINING WALL
AD8145_SP_SET: RETAINING WALL
AD8145_STAMPING: B-49 BM SFWMD
AD8145_MARK LOGO: SFLWMD
AD8145_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8145_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8145_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
AD8145+SATELLITE: SATELLITE OBSERVATIONS - October 05, 2004
AD8145
AD8145 HISTORY   - Date   Condition   Report By
AD8145 HISTORY   - UNK   MONUMENTED   SFLWMD
AD8145 HISTORY   - 19920316 GOOD   NGS
AD8145 HISTORY   - 19960908 GOOD   FLDEP
AD8145 HISTORY   - 20041005 GOOD   MCKIM
AD8145

AD8145   STATION DESCRIPTION
AD8145
AD8145'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8145'15.1 KM (9.40 MI) SOUTHERLY ALONG MIAMI CANAL ROAD AND A LEVEE ROAD
AD8145'ON THE WEST SIDE OF THE MIAMI CANAL FROM THE POST OFFICE IN LAKE
AD8145'HARBOR, THENCE 0.1 KM (0.05 MI) EASTERLY ALONG A PAVED ROAD, THENCE
AD8145'27.1 KM (16.85 MI) SOUTHERLY ALONG A LEVEE ROAD ON THE EAST SIDE OF
AD8145'THE CANAL, THENCE 0.3 KM (0.20 MI) WESTERLY ALONG A PAVED ROAD, IN
AD8145'TOP OF AND 7.1 M (23.3 FT) NORTH OF THE SOUTH END OF THE EAST
AD8145'CONCRETE RETAINING WALL AT PUMPING STATION NUMBER 8, 16.2 M (53.1 FT)
AD8145'SOUTHWEST OF THE SOUTH GATE POST, 6.6 M (21.7 FT) WEST OF THE
AD8145'SOUTHEAST CORNER OF THE BUILDING, 0.4 M (1.3 FT) SOUTH OF THE SOUTH
AD8145'FACE OF A WALKWAY, AND 0.2 M (0.7 FT) WEST OF THE EAST EDGE OF THE
AD8145'WALL.
AD8145
AD8145   STATION RECOVERY (1996)
AD8145
AD8145'RECOVERY NOTE BY FL DEPT OF ENV PRO 1996 (VAJ)
AD8145'THE MARK IS ABOUT 30.4 MI (48.9 KM) SOUTH-SOUTHEAST OF CLEWISTON, 25.0
AD8145'MI (40.2 KM) SOUTH-SOUTHWEST OF BELLE GLADE IN ESTIMATED SECTION 7,
AD8145'TOWNSHIP 48 SOUTH, RANGE 36 EAST. TO REACH THE MARK FROM THE POST
AD8145'OFFICE IN LAKE HARBOR, GO SOUTHERLY ON THE MIAMI CANAL ROAD (WEST SIDE
AD8145'OF CANAL) FOR 0.65 MI (1.05 KM) TO THE END OF THE PAVEMENT, CONTINUE
AD8145'SOUTHERLY ON THE MIAMI CANAL ROAD FOR 2.35 MI (3.78 KM) TO THE
AD8145'JUNCTION OF ROGERS ROAD ON THE RIGHT, CONTINUE SOUTHERLY ON THE MIAMI
AD8145'CANAL ROAD FOR 6.25 MI (10.06 KM) TO THE INTERSECTION OF A PAVED ROAD,
AD8145'TURN LEFT ON THE PAVED ROAD AND GO EASTERLY FOR 0.05 MI (0.08 KM) TO
AD8145'THE EAST SIDE OF THE MIAMI CANAL AND A DIRT LEVEE ROAD ON THE RIGHT,
AD8145'TURN RIGHT ON THE DIRT LEVEE ROAD AND GO SOUTHERLY FOR 16.85 MI (27.12
AD8145'KM) TO THE Y-JUNCTION OF LEVEE ROAD NUMBER L-5, TURN RIGHT ON LEVEE
AD8145'ROAD NUMBER L-5 AND GO SOUTH FOR 0.05 MI (0.08 KM) TO THE SOUTH SIDE
AD8145'OF THE CANAL AND THE T-JUNCTION OF LEVEE ROAD NUMBER L-5, TURN RIGHT
AD8145'ON LEVEE ROAD NUMBER L-5 AND GO WEST FOR 0.05 MI (0.08 KM) TO PUMP
AD8145'STATION NUMBER 8 AND THE MARK, SET IN THE TOP OF THE SOUTHEAST
AD8145'CONCRETE RETAINING WALL. LOCATED 53.1 FT (16.2 M) SOUTHWEST OF THE
AD8145'SOUTH GATE POST OF PUMP STATION NUMBER 8, 23.3 FT (7.1 M) NORTH OF THE
AD8145'SOUTH END OF THE SOUTHEAST CONCRETE RETAINING WALL, 21.7 FT (6.6 M)
AD8145'WEST OF THE SOUTHEAST CORNER OF PUMP STATION NUMBER 8, 1.3 FT (0.4 M)
AD8145'SOUTH OF THE SOUTH WALL OF A SIDEWALK AND 0.7 FT (21.3 CM) WEST OF THE
AD8145'EAST EDGE OF THE RETAINING WALL. NOTE CONTACT GENE TANNER, SOUTH
AD8145'FLORIDA WATER MANAGEMENT, REGIONAL DIRECTOR, CLEWISTON FIELD STATION,
AD8145'PHONE NUMBER 813-983-1431.
AD8145
AD8145   STATION RECOVERY (2004)
AD8145
AD8145'RECOVERY NOTE BY MCKIM AND CREED 2004 (BRH)
AD8145'RECOVERED IN GOOD CONDITION.
1   National Geodetic Survey,   Retrieval Date = JULY 25, 2007

AD8139 ***
AD8139 DESIGNATION - B 55   **(TRANSFERRED TO CP1059)**
AD8139 PID   - AD8139
AD8139 STATE/COUNTY- FL/BROWARD
AD8139 USGS QUAD   - WEST OF DEEM CITY (1974)
AD8139
AD8139   *CURRENT SURVEY CONTROL
AD8139 ____
AD8139* NAD 83(1986)- 26 20 00.   (N)   080 41 07.   (W)   SCALED
AD8139* NAVD 88   -   3.826 (meters)   12.55   (feet) ADJUSTED
AD8139 ____
AD8139 GEOID HEIGHT-   -24.82 (meters)   GEOID03

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 AD8139  DYNAMIC HT   -           3.820 (meters)      12.53  (feet)  COMP
 AD8139  MODELED GRAV-     979,067.7   (mgal)                       NAVD 88
 AD8139
 AD8139  VERT ORDER   -  FIRST     CLASS II
 AD8139
 AD8139.The horizontal coordinates were scaled from a topographic map and have
 AD8139.an estimated accuracy of +/- 6 seconds.
 AD8139
 AD8139.The orthometric height was determined by differential leveling
 AD8139.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
 AD8139
 AD8139.The geoid height was determined by GEOID03.
 AD8139
 AD8139.The dynamic height is computed by dividing the NAVD 88
 AD8139.geopotential number by the normal gravity value computed on the
 AD8139.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD8139.degrees latitude (g = 980.6199 gals.).
 AD8139
 AD8139.The modeled gravity was interpolated from observed gravity values.
 AD8139
 AD8139;                     North         East     Units  Estimated Accuracy
 AD8139;SPC FL E     -   221,580.      231,420.      MT  (+/- 180 meters Scaled)
 AD8139
 AD8139                          SUPERSEDED SURVEY CONTROL
 AD8139
 AD8139  NGVD 29 (09/01/92)    4.267  (m)           14.00   (f) ADJUSTED    1 2
 AD8139
 AD8139.Superseded values are not recommended for survey control.
 AD8139.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AD8139.See file dsdata.txt to determine how the superseded data were derived.
 AD8139
 AD8139_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK314126(NAD 83)
 AD8139_MARKER: DD = SURVEY DISK
 AD8139_SETTING: 40 = SET IN A LARGE STRUCTURE WITH DEEP FOUNDATIONS
 AD8139_SP_SET: FOOTING
 AD8139_STAMPING: B 55 BM SFWM
 AD8139_MARK LOGO: SFLWMD
 AD8139_MAGNETIC: N = NO MAGNETIC MATERIAL
 AD8139_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 AD8139+STABILITY: POSITION/ELEVATION WELL
 AD8139_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
 AD8139+SATELLITE: SATELLITE OBSERVATIONS - March 16, 1992
 AD8139
 AD8139  HISTORY     - Date     Condition        Report By
 AD8139  HISTORY     - UNK      MONUMENTED       SFLWMD
 AD8139  HISTORY     - 19920316 GOOD             NGS
 AD8139
 AD8139                          STATION DESCRIPTION
 AD8139
 AD8139'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
 AD8139'23.8 KM (14.80 MI) NORTHERLY ALONG U.S. HIGHWAY 27 FROM THE JUNCTION
 AD8139'OF EASTBOUND INTERSTATE HIGHWAY 75 (ALLIGATOR ALLEY), THENCE 14.8 KM
 AD8139'(9.20 MI) WESTERLY ALONG A LEVEE ROAD, IN TOP OF AND NEAR THE SOUTH
 AD8139'END OF A CONCRETE FOOTING FOR UTILITY TOWER NUMBER 37, 38.5 M (126.3
 AD8139'FT) NORTH OF THE CENTER OF THE ROAD, 4.7 M (15.4 FT) WEST OF THE
 AD8139'CENTER OF A GRAVELED ROAD, 0.6 M (2.0 FT) BELOW THE LEVEL OF THE
 AD8139'ROAD, AND 0.1 M (0.3 FT) SOUTH OF THE SOUTH LEG OF THE TOWER.
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007

 DF8082 ***********************************************************************
 DF8082  DESIGNATION -  D 567                (TRANSFERRED TO CP1054)
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DF8082 PID   - DF8082
DF8082 STATE/COUNTY- FL/PALM BEACH
DF8082 USGS QUAD   - NORTH OF DEEM CITY (1974)
DF8082
DF8082   *CURRENT SURVEY CONTROL
DF8082 ____
DF8082* NAD 83(1986)- 26 22 42.   (N)   080 30 45.   (W)   SCALED
DF8082* NAVD 88   -   5.299 (meters)   17.39   (feet) ADJUSTED
DF8082 ____
DF8082 GEOID HEIGHT-   -24.98 (meters)   GEOID03
DF8082 DYNAMIC HT -   5.290 (meters)   17.36 (feet) COMP
DF8082 MODELED GRAV-   979,078.9   (mgal)   NAVD 88
DF8082
DF8082 VERT ORDER - FIRST   CLASS II
DF8082
DF8082.The horizontal coordinates were scaled from a topographic map and have
DF8082.an estimated accuracy of +/- 6 seconds.
DF8082
DF8082.The orthometric height was determined by differential leveling
DF8082.and adjusted by the NATIONAL GEODETIC SURVEY in January 2004.
DF8082
DF8082.The geoid height was determined by GEOID03.
DF8082
DF8082.The dynamic height is computed by dividing the NAVD 88
DF8082.geopotential number by the normal gravity value computed on the
DF8082.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DF8082.degrees latitude (g = 980.6199 gals.).
DF8082
DF8082.The modeled gravity was interpolated from observed gravity values.
DF8082
DF8082;   North   East   Units Estimated Accuracy
DF8082;SPC FL E   -   226,620.   248,650.   MT (+/- 180 meters Scaled)
DF8082
DF8082   SUPERSEDED SURVEY CONTROL
DF8082
DF8082.No superseded survey control is available for this station.
DF8082
DF8082_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK486176(NAD 83)
DF8082_MARKER: DD = SURVEY DISK
DF8082_SETTING: 34 = SET IN THE FOOTINGS OF SMALL/MEDIUM STRUCTURES
DF8082_SP_SET: RADIO TOWER BASE
DF8082_STAMPING: D 567 2002
DF8082_MARK LOGO: FLDEP
DF8082_MAGNETIC: N = NO MAGNETIC MATERIAL
DF8082_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DF8082+STABILITY: SURFACE MOTION
DF8082_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DF8082+SATELLITE: SATELLITE OBSERVATIONS - June 14, 2004
DF8082
DF8082 HISTORY   - Date   Condition   Report By
DF8082 HISTORY   - 20020904 MONUMENTED   FLDEP
DF8082 HISTORY   - 20040614 GOOD   INDIV
DF8082
DF8082   STATION DESCRIPTION
DF8082
DF8082'DESCRIBED BY FL DEPT OF ENV PRO 2002 (JLM)
DF8082'THE MARK IS ABOUT 21.7 MI SOUTH OF SOUTH BAY, 18.0 MI NORTH OF
DF8082'ANDYTOWN, IN THE BROWNS
DF8082'FARM WILDLIFE MANAGEMENT AREA, IN ESTIMATED SECTION 2, TOWNSHIP 47
DF8082'SOUTH, RANGE 38
DF8082'EAST.

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 DF8082'
 DF8082'TO REACH THE MARK FROM THE INTERSECTION OF HIGHWAY 75 (STATE HIGHWAY
 DF8082'84 ALLIGATOR
 DF8082'ALLEY) AND U.S. HIGHWAY 27 UNDERPASS IN ANDYTOWN, GO NORTH ON U.S.
 DF8082'HIGHWAY 27 FOR 14.7 MI
 DF8082'TO THE PALM BEACH-BROWARD COUNTY LINE, CONTINUE NORTH ON U.S. HIGHWAY
 DF8082'27 FOR 0.1 MI TO
 DF8082'THE ENTRANCE TO SOUTH FLORIDA WATER MANAGEMENT DISTRICT PUMP STATION
 DF8082'ON THE RIGHT
 DF8082'(STRUCTURE S-7), TURN RIGHT AND GO EAST FOR APPROXIMATELY 80.0 FT TO A
 DF8082'SET OF LOCKED
 DF8082'GATES, PASSING THROUGH THE GATE ON THE LEFT, CONTINUE EAST ON THE
 DF8082'ENTRANCE ROAD FOR
 DF8082'0.1 MI TO THE TOP OF THE LEVEE, TURN LEFT ON THE LEVEE ROAD (L-6) AND
 DF8082'GO NORTHEAST FOR 0.05
 DF8082'MI TO THE END OF THE PAVEMENT, BEAR LEFT ON THE LIMEROCK ROAD AND GO
 DF8082'NORTHWEST FOR
 DF8082'0.05 MI TO THE JUNCTION OF AN EAST-WEST LIMEROCK ROAD ON THE NORTH
 DF8082'SIDE OF THE CANAL,
 DF8082'TURN RIGHT ON THE LIMEROCK ROAD AND GO NORTHEAST FOR 3.35 MI TO THE
 DF8082'ENTRANCE GATE FOR
 DF8082'PUMP STATION G-335, CONTINUE WEST ON THE ENTRANCE ROAD FOR 0.05 MI TO
 DF8082'THE WEST END OF
 DF8082'PUMP STATION G-335 AND THE MARK ON THE RIGHT, SET FLUSH IN THE TOP OF
 DF8082'THE CONCRETE BASE
 DF8082'SUPPORTING A RADIO TOWER.
 DF8082'
 DF8082'LOCATED 59.5 FT NORTH OF THE SOUTHWEST CORNER OF PUMP STATION G-335,
 DF8082'13.7 FT EAST OF THE
 DF8082'APPROXIMATE CENTERLINE OF THE ROAD, 11.8 FT SOUTH OF A 3.0 FT TALL
 DF8082'CHAINLINK FENCE (10.0 FT
 DF8082'LONG), 6.7 FT EAST OF A 3.0 FT TALL RETAINING WALL, 4.3 FT WEST OF THE
 DF8082'WEST FACE OF THE
 DF8082'BUILDING (PUMP STATION G-335) AND 0.9 FT SOUTH OF THE WEST LEG OF THE
 DF8082'TOWER.
 DF8082'
 DF8082'NOTE FOR KEY CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT
 DF8082'561-686-8800.
 DF8082'
 DF8082
 DF8082                          STATION RECOVERY (2004)
 DF8082
 DF8082'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2004 (TZ)
 DF8082'RECOVERED IN GOOD CONDITION.
  The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AE6418 ***********************************************************************
 AE6418  DESIGNATION -  F 438              (TRANSFERRED TO CP1112)
 AE6418  PID         -  AE6418
 AE6418  STATE/COUNTY-  FL/GLADES
 AE6418  USGS QUAD   -  BRIGHTON (1972)
 AE6418
 AE6418                          *CURRENT SURVEY CONTROL
 AE6418  ______________________________________________________________________
 AE6418* NAD 83(1986)-  27 08 21.     (N)    081 03 10.     (W)     SCALED
 AE6418* NAVD 88     -         8.540  (meters)      28.02   (feet)  ADJUSTED
 AE6418  ______________________________________________________________________
 AE6418  GEOID HEIGHT-         -25.73  (meters)                     GEOID03
 AE6418  DYNAMIC HT  -           8.527 (meters)      27.98  (feet)  COMP
 AE6418  MODELED GRAV-     979,104.5   (mgal)                       NAVD 88
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AE6418
AE6418 VERT ORDER - SECOND   CLASS I
AE6418
AE6418.The horizontal coordinates were scaled from a topographic map and have
AE6418.an estimated accuracy of +/- 6 seconds.
AE6418
AE6418.The orthometric height was determined by differential leveling
AE6418.and adjusted in March 1998.
AE6418
AE6418.The geoid height was determined by GEOID03.
AE6418
AE6418.The dynamic height is computed by dividing the NAVD 88
AE6418.geopotential number by the normal gravity value computed on the
AE6418.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AE6418.degrees latitude (g = 980.6199 gals.).
AE6418
AE6418.The modeled gravity was interpolated from observed gravity values.
AE6418
AE6418;   North   East   Units Estimated Accuracy
AE6418;SPC FL E   -   310,830.   194,770.   MT (+/- 180 meters Scaled)
AE6418
AE6418   SUPERSEDED SURVEY CONTROL
AE6418
AE6418.No superseded survey control is available for this station.
AE6418
AE6418_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML947018(NAD 83)
AE6418_MARKER: DV = VERTICAL CONTROL DISK
AE6418_SETTING: 31 = SET IN A PAVEMENT SUCH AS STREET, SIDEWALK, CURB, ETC.
AE6418_SP_SET: BRIDGE CURB
AE6418_STAMPING: F 438 1995
AE6418_MARK LOGO: NGS
AE6418_MAGNETIC: N = NO MAGNETIC MATERIAL
AE6418_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
AE6418
AE6418 HISTORY   - Date   Condition   Report By
AE6418 HISTORY   - 1995   MONUMENTED   FLDEP
AE6418
AE6418   STATION DESCRIPTION
AE6418
AE6418'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
AE6418'THE MARK IS ABOUT 22.0 MI (35.4 KM) SOUTHEAST OF LAKE PLACID, 14.0 MI
AE6418'(22.5 KM) SOUTHWEST OF OKEECHOBEE IN SECTION 30, TOWNSHIP 38 SOUTH,
AE6418'RANGE 33 EAST. TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD
AE6418'70 AND COUNTY ROAD 721 WEST OF OKEECHOBEE, GO SOUTH ON COUNTY ROAD 721
AE6418'FOR 3.8 MI (6.1 KM) TO THE SOUTH END OF THE BRIDGE OVER CANAL C 40
AE6418'(INDIAN PRAIRIE CANAL) AND A LOCKED GATE ON THE LEFT, TURN LEFT
AE6418'PASSING THROUGH THE GATE, GO SOUTHEAST ON WEST LEVEE ROAD FOR 3.4 MI
AE6418'(5.5 KM) TO A BRIDGE OVER CANAL C 40 AND THE MARK SET FLUSH IN THE
AE6418'NORTHWEST CORNER OF THE CONCRETE CURB OF THE BRIDGE. LOCATED 65.2 FT
AE6418'(19.9 M) NORTHEAST OF THE APPROXIMATE CENTERLINE OF THE DIM TRACK ROAD
AE6418'ON TOP OF THE LEVEE, 14.5 FT (4.4 M) WEST OF THE APPROXIMATE
AE6418'CENTERLINE OF THE BRIDGE OVER CANAL C 40 AND 2.0 FT (0.6 M) NORTH OF A
AE6418'CARSONITE WITNESS POST. NOTE ALL GATES ON LEVEE ARE LOCKED, FOR KEY
AE6418'CONTACT CARL ZEISS, SOUTH FLORIDA WATER MANAGEMENT DISTRICT, WEST PALM
AE6418'BEACH, FL. PHONE NUMBER (407) 686-8800.

*** retrieval complete.
Elapsed Time = 00:00:01

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1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
 AJ3511 ***********************************************************************
 AJ3511  DESIGNATION -  FCE 107           (TRANSFERRED TO CP1141)
 AJ3511  PID         -  AJ3511
 AJ3511  STATE/COUNTY-  FL/PALM BEACH
 AJ3511  USGS QUAD   -  BELLE GLADE (1984)
 AJ3511
 AJ3511                        *CURRENT SURVEY CONTROL
 AJ3511  ______________________________________________________________________
 AJ3511* NAD 83(1986)-  26 44 56.     (N)    080 41 02.     (W)     SCALED
 AJ3511* NAVD 88     -         5.604  (meters)      18.39   (feet)  ADJUSTED
 AJ3511  ______________________________________________________________________
 AJ3511  GEOID HEIGHT-         -25.18  (meters)                     GEOID03
 AJ3511  DYNAMIC HT  -           5.595 (meters)      18.36  (feet)  COMP
 AJ3511  MODELED GRAV-     979,112.6   (mgal)                       NAVD 88
 AJ3511
 AJ3511  VERT ORDER  -  SECOND    CLASS I
 AJ3511
 AJ3511.The horizontal coordinates were scaled from a topographic map and have
 AJ3511.an estimated accuracy of +/- 6 seconds.
 AJ3511
 AJ3511.The orthometric height was determined by differential leveling
 AJ3511.and adjusted by the NATIONAL GEODETIC SURVEY in September 2001.
 AJ3511
 AJ3511.The geoid height was determined by GEOID03.
 AJ3511
 AJ3511.The dynamic height is computed by dividing the NAVD 88
 AJ3511.geopotential number by the normal gravity value computed on the
 AJ3511.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ3511.degrees latitude (g = 980.6199 gals.).
 AJ3511
 AJ3511.The modeled gravity was interpolated from observed gravity values.
 AJ3511
 AJ3511;                    North         East     Units  Estimated Accuracy
 AJ3511;SPC FL E     -   267,620.      231,440.      MT  (+/- 180 meters Scaled)
 AJ3511
 AJ3511                          SUPERSEDED SURVEY CONTROL
 AJ3511
 AJ3511.No superseded survey control is available for this station.
 AJ3511
 AJ3511_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK314586(NAD 83)
 AJ3511_MARKER: DD = SURVEY DISK
 AJ3511_SETTING: 32 = SET IN A RETAINING WALL OR CONCRETE LEDGE
 AJ3511_SP_SET: RETAINING WALL
 AJ3511_STAMPING: FCE 107
 AJ3511_MARK LOGO: USE
 AJ3511_MAGNETIC: N = NO MAGNETIC MATERIAL
 AJ3511_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AJ3511+STABILITY: SURFACE MOTION
 AJ3511_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
 AJ3511+SATELLITE: SATELLITE OBSERVATIONS - March 29, 2000
 AJ3511
 AJ3511  HISTORY     - Date     Condition        Report By
 AJ3511  HISTORY     - UNK      MONUMENTED       USE
 AJ3511  HISTORY     - 20000329 GOOD             FLDEP
 AJ3511
 AJ3511                          STATION DESCRIPTION
 AJ3511
 AJ3511'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
 AJ3511'THE MARK IS ABOUT 12.5 MI (20.1 KM) SOUTHWEST OF CANAL POINT, 6.0 MI
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 AJ3511'(9.7 KM) NORTH OF SOUTH BAY, 3.8 MI (6.1 KM) WEST OF BELLE GLADE, ON
 AJ3511'THE EAST SIDE OF LAKE OKEECHOBEE, IN ESTIMATED SECTION 7, TOWNSHIP 43
 AJ3511'SOUTH, RANGE 36 EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S.
 AJ3511'HIGHWAY 27 AND STATE ROAD 80 IN SOUTH BAY, GO NORTHERLY ON U.S.
 AJ3511'HIGHWAY 27 FOR 1.6 MI (2.6 KM) TO THE JUNCTION OF A PAVED LEVEE ROAD
 AJ3511'ON THE RIGHT, TURN RIGHT ON THE PAVED LEVEE ROAD AND GO NORTHEAST FOR
 AJ3511'0.15 MI (0.24 KM) TO THE ENTRANCE TO THE CITY OF SOUTH BAY MUNICIPAL
 AJ3511'BOAT RAMP ON THE LEFT, TURN LEFT ON THE ENTRANCE ROAD AND GO NORTH
 AJ3511'UPHILL FOR 0.05 MI (0.08 KM) TO THE TOP OF THE LAKE OKEECHOBEE LEVEE
 AJ3511'ROAD, TURN RIGHT ON THE LEVEE ROAD AND GO NORTHEAST FOR ABOUT 80.0 FT
 AJ3511'(24.4 M) TO A LOCKED GATE ACROSS THE LEVEE ROAD, PASSING THRU THE
 AJ3511'LOCKED GATE CONTINUE NORTHEAST FOR 1.2 MI (1.9 KM) TO ANOTHER LOCKED
 AJ3511'GATE ACROSS THE LEVEE ROAD, PASSING THRU THE LOCKED GATE CONTINUE
 AJ3511'NORTHEAST FOR 0.2 MI (0.3 KM) TO PUMPING STATION NUMBER 2, CONTINUE
 AJ3511'NORTHEAST ON THE LEVEE ROAD FOR 0.4 MI (0.6 KM) PASSING THROUGH 5 MORE
 AJ3511'LOCKED GATES TO THE INTERSECTION OF WEST CANAL STREET, CONTINUE
 AJ3511'NORTHEAST FOR ABOUT 160.0 FT (48.8 M) TO A LOCKED GATE, CONTINUE
 AJ3511'NORTHEAST ON THE LEVEE ROAD FOR 3.6 MI (5.8 KM) TO THE MARK ON THE
 AJ3511'RIGHT, SET IN THE TOP OF THE SOUTHWEST RETAINING WALL NEAR PUMP HOUSE
 AJ3511'C-12 FLUSH WITH THE RETAINING WALL AND 15.0 FT (4.6 M) BELOW THE LEVEL
 AJ3511'OF THE LEVEE ROAD. LOCATED 148.3 FT (45.2 M) NORTHWEST OF THE
 AJ3511'SOUTHWEST CORNER OF THE PUMP HOUSE, 51.2 FT (15.6 M) SOUTHEAST OF THE
 AJ3511'APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 42.5 FT (13.0 M) SOUTHEAST
 AJ3511'OF A GUARDRAIL, 28.5 FT (8.7 M) SOUTHEAST OF A 4.0 FT (1.2 M) TALL
 AJ3511'CHAIN-LINK FENCE AND 16.0 FT (4.9 M) NORTHEAST OF A METAL WALL WITH A
 AJ3511'4.0 FT (1.2 M) TALL FENCE ON TOP.
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AD7243 ***********************************************************************
 AD7243  DESIGNATION -  FCE 1559           (TRANSFERRED TO CP1053)
 AD7243  PID         -  AD7243
 AD7243  STATE/COUNTY-  FL/PALM BEACH
 AD7243  USGS QUAD   -  WEST OF BIG LAKE (1990)
 AD7243
 AD7243                        *CURRENT SURVEY CONTROL
 AD7243  ______________________________________________________________________
 AD7243* NAD 83(2007)-  26 28 19.60373(N)    080 26 44.92490(W)     ADJUSTED
 AD7243* NAVD 88     -         4.527  (meters)      14.85   (feet)  ADJUSTED
 AD7243  ______________________________________________________________________
 AD7243  EPOCH DATE  -        2002.00
 AD7243  X           -     948,275.590 (meters)                     COMP
 AD7243  Y           -  -5,633,933.984 (meters)                     COMP
 AD7243  Z           -   2,825,970.136 (meters)                     COMP
 AD7243  LAPLACE CORR-          -1.48  (seconds)                    DEFLEC99
 AD7243  ELLIP HEIGHT-         -20.628 (meters)          (02/10/07) ADJUSTED
 AD7243  GEOID HEIGHT-         -25.15  (meters)                     GEOID03
 AD7243  DYNAMIC HT  -           4.520 (meters)      14.83  (feet)  COMP
 AD7243
 AD7243  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AD7243  Type    PID    Designation                       North   East  Ellip
 AD7243  ----------------------------------------------------------------------
 AD7243  NETWORK AD7243 FCE 1559                            1.41   1.37   2.23
 AD7243  ----------------------------------------------------------------------
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AD7243  MODELED GRAV-     979,090.8   (mgal)                        NAVD 88
AD7243
AD7243  VERT ORDER  -  FIRST     CLASS II
AD7243
AD7243.The horizontal coordinates were established by GPS observations
AD7243.and adjusted by the National Geodetic Survey in February 2007.
AD7243
AD7243.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AD7243.See National Readjustment for more information.
AD7243.The horizontal coordinates are valid at the epoch date displayed above.
AD7243.The epoch date for horizontal control is a decimal equivalence
AD7243.of Year/Month/Day.
AD7243
AD7243.The orthometric height was determined by differential leveling
AD7243.and adjusted in April 2002.
AD7243
AD7243.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD7243
AD7243.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7243
AD7243.The ellipsoidal height was determined by GPS observations
AD7243.and is referenced to NAD 83.
AD7243
AD7243.The geoid height was determined by GEOID03.
AD7243
AD7243.The dynamic height is computed by dividing the NAVD 88
AD7243.geopotential number by the normal gravity value computed on the
AD7243.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7243.degrees latitude (g = 980.6199 gals.).
AD7243
AD7243.The modeled gravity was interpolated from observed gravity values.
AD7243
AD7243;                    North         East     Units Scale Factor Converg.
AD7243;SPC FL E     -   237,036.968   255,257.607   MT  0.99997886   +0 14 49.4
AD7243;SPC FL E     -   777,678.79    837,457.67   sFT  0.99997886   +0 14 49.4
AD7243;UTM  17      - 2,928,088.074   555,238.754   MT  0.99963767   +0 14 49.4
AD7243
AD7243!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD7243!SPC FL E     -   1.00000324  x   0.99997886  =   0.99998210
AD7243!UTM  17      -   1.00000324  x   0.99963767  =   0.99964091
AD7243
AD7243|---------------------------------------------------------------------|
AD7243| PID    Reference Object                    Distance      Geod. Az  |
AD7243|                                                          dddmmss.s |
AD7243| AE7233 FCE 3625                          18.601 METERS 12202     |
AD7243|---------------------------------------------------------------------|
AD7243
AD7243                          SUPERSEDED SURVEY CONTROL
AD7243
AD7243  NAD 83(1999)-  26 28 19.60378(N)    080 26 44.92523(W) AD(       ) 1
AD7243  ELLIP H (12/12/02)  -20.624  (m)                       GP(       ) 4 1
AD7243  NAD 83(1990)-  26 28 19.60269(N)    080 26 44.92424(W) AD(       ) 2
AD7243  NAD 83(1986)-  26 28 19.60595(N)    080 26 44.93207(W) AD(       ) 2
AD7243  NAD 27      -  26 28 18.33865(N)    080 26 45.74421(W) AD(       ) 2
AD7243  NAVD 88 (12/12/02)    4.53   (m)           14.9    (f) LEVELING    3
AD7243  NGVD 29 (07/19/86)    5.1    (m)           17.     (f) VERT ANG
AD7243
AD7243.Superseded values are not recommended for survey control.
AD7243.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7243.See file dsdata.txt to determine how the superseded data were derived.
AD7243
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AD7243_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK5523928088(NAD 83)
AD7243_MARKER: DD = SURVEY DISK
AD7243_SETTING: 36 = SET IN A MASSIVE STRUCTURE
AD7243_SP_SET: PUMP FOUNDATION
AD7243_STAMPING: FCE 1559 1957
AD7243_MARK LOGO: USE
AD7243_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7243_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD7243_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7243+SATELLITE: SATELLITE OBSERVATIONS - April 23, 2002
AD7243
AD7243 HISTORY   - Date   Condition   Report By
AD7243 HISTORY   - 1957   MONUMENTED   USE
AD7243 HISTORY   - 1970   GOOD   USE
AD7243 HISTORY   - 20010925 GOOD   FOST
AD7243 HISTORY   - 20011102 GOOD   FLDEP
AD7243 HISTORY   - 20020423 GOOD   MAPTEC
AD7243
AD7243   STATION DESCRIPTION
AD7243
AD7243'DESCRIBED BY US ENGINEERS 1970 (NCA)
AD7243'THE MARK WAS USED AS REFERENCE MARK 2 TO TRIANGULATION BORO.
AD7243'
AD7243'THE MARK IS STAMPED FCE 1559 1957.
AD7243'
AD7243'A TRAVERSE MEASUREMENT WAS MADE TO STATION BORO. THE DISTANCE
AD7243'BEING (94.82 FEET) OR 28.9010 METERS.
AD7243'
AD7243'FOR TO REACH AND DESCRIPTION OF STATION, REFER TO THE DESCRIPTION
AD7243'OF STATION BORO.
AD7243
AD7243   STATION RECOVERY (2001)
AD7243
AD7243'RECOVERY NOTE BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)
AD7243'THE MONUMENT WAS RECOVERED AS DESCRIBED IN 1970 FOR STATION BORO AS
AD7243'FOLLOWS--
AD7243'
AD7243'STATION IS ABOUT 23 MILES WEST OF DELRAY BEACH, 18 MILES SOUTHWEST OF
AD7243'LOXAHATCHEE, 14 MILES WEST OF U.S. HIGHWAY 441 (ALSO STATE HIGHWAY 7),
AD7243'9 MILES NORTH OF THE PALM BEACH AND BROWARD COUNTY LINE, ON THE
AD7243'NORTHEAST SIDE OF THE HILLSBORO CANAL, AT THE SITE OF FLOOD CONTROL
AD7243'PUMPING STATION NUMBER 6 AND ON STATE OWNED PROPERTY.
AD7243'
AD7243'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 441 AND STATE
AD7243'HIGHWAY 827 AT THE PALM BEACH AND BROWARD COUNTY LINE WHERE THE
AD7243'HILLSBORO CANAL PASSES UNDER HIGHWAY 441 ABOUT 7 MILES WEST OF
AD7243'DEERFIELD BEACH, GO WEST ON HIGHWAY 827 FOR 6.3 MILES TO A SIGN ON THE
AD7243'RIGHT LOXAHATCHEE NATIONAL WILDLIFE REFUGE. CONTINUE WEST FOR 0.15
AD7243'MILE TO THE TOP OF A LEVEE AND A FISHING CAMP AND BOAT LANDING.
AD7243'CONTINUE WEST ON THE LEVEE ROAD FOR 0.25 MILE TO A GATE ACROSS THE
AD7243'LEVEE. PASS THROUGH THE GATE AND CONTINUE WEST AND NORTHWEST ON LEVEE
AD7243'ROAD FOR 13.1 MILES TO ANOTHER GATE ACROSS LEVEE. PASS THROUGH GATE
AD7243'AND GO ABOUT 50 FEET TO A WIRE GATE ON THE RIGHT (ENTRANCE TO PUMPING
AD7243'STATION NUMBER 6). TURN RIGHT AND GO THROUGH THE GATE KEEPING TO THE
AD7243'RIGHT OF THE PUMPING STATION FOR 0.05 MILE TO THE NORTHEAST END OF THE
AD7243'PUMP BUILDING AND STATION BORO (1970) ON THE LEFT.
AD7243'
AD7243'ALL MARKS WITH THE EXCEPTION OF FCE 1559 ARE STANDARD DISKS.
AD7243'
AD7243'FCE 1559, STAMPED FCE 1559 1957, IS A FLORIDA FLOOD CONTROL SURVEY
AD7243'DISK CEMENTED IN A DRILL HOLE IN THE NORTHWEST CORNER OF THE CONCRETE

AD7243'FOUNDATION AROUND THE PUMPING STATION. IT IS 32.5 FEET WEST OF THE
AD7243'NORTHWEST CORNER OF THE PUMP BUILDING, 18 FEET NORTHWEST OF CENTER OF
AD7243'THE DRIVE ON THE NORTHWEST SIDE OF THE BUILDING, 11 FEET SOUTHEAST OF
AD7243'THE SOUTH END OF THE GUARD RAIL AND 1.2 FEET NORTHEAST OF THE
AD7243'NORTHEAST EDGE OF THE CANAL.
AD7243
AD7243   STATION RECOVERY (2001)
AD7243
AD7243'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
AD7243'THE MARK IS AT FLOOD CONTROL STRUCTURE S-6, ABOUT 22.5 MI NORTHWEST OF
AD7243'PARKLAND, 21.0 MI SOUTHEAST OF BELLE GLADE, IN THE LOXAHATCHEE
AD7243'NATIONAL WILDLIFE REFUGE CONSERVATION AREA, IN ESTIMATED SECTION 15,
AD7243'TOWNSHIP 46 SOUTH, RANGE 39 EAST.
AD7243'
AD7243'TO REACH THE MARK FROM THE JUNCTION OF STATE HIGHWAY 80 (SOUTH MAIN
AD7243'STREET) AND STATE HIGHWAY 880 (MARTIN LUTHER KING JR BOULEVARD,
AD7243'SOUTHEAST AVENUE E) IN BELLE GLADE, GO EASTERLY ON STATE ROAD 880
AD7243'(MARTIN LUTHER KING JR BOULEVARD, SOUTHEAST
AD7243'AVENUE E) FOR 0.5 MI TO A SIGNAL LIGHT AT A Y-JUNCTION, BEAR RIGHT AND
AD7243'GO SOUTHEAST ON STATE ROAD 880 (STATE ROAD 80) FOR 5.4 MI TO THE
AD7243'JUNCTION OF BROWNS FARM ROAD (STATE ROAD 827) ON THE RIGHT (JUST
AD7243'BEFORE REACHING A BRIDGE OVER THE HILLSBORO CANAL AT SIXMILE BEND),
AD7243'BEAR RIGHT ON BROWNS FARM ROAD (STATE ROAD 827) AND GO SOUTHEASTERLY
AD7243'ALONG THE SOUTHWEST SIDE OF THE HILLSBORO CANAL FOR 1.4 MI TO THE
AD7243'JUNCTION OF THE BOLLES CANAL (LEVEE L-16) ON THE RIGHT, CONTINUE
AD7243'SOUTHWEST ON BROWNS FARM ROAD FOR 5.25 MI TO THE JUNCTION OF A ROAD
AD7243'ON THE LEFT AND A LARGE CONCRETE BLOCK PUMPING STATION OWNED BY
AD7243'SHAWANO DRAINAGE DISTRICT, CONTINUE SOUTHEAST ON BROWNS FARM ROAD
AD7243'(STATE ROAD 827) FOR 2.95 MI TO THE NORTHWEST END OF BRIDGE NUMBER
AD7243'934518 (SHAWANO DRAINAGE DISTRICT UNIT 1 BRIDGE), CONTINUE SOUTHEAST
AD7243'ON BROWN'S FARM ROAD (STATE ROAD 827) FOR 2.5 MI TO A SUGAR CANE FIELD
AD7243'ENTRANCE ROAD ON THE RIGHT AND THE END OF THE PAVEMENT, CONTINUE
AD7243'SOUTHEAST ON BROWNS FARM ROAD (STATE ROAD 827) FOR 2.45 MI TO A
AD7243'LOCKED GATE (SFLWMD GATE), CONTINUE SOUTHEAST ON THE LIMEROCK ROAD
AD7243'(STATE ROAD 827 FOR 0.3 MI TO STRUCTURE S-6 AND THE MARK, SET IN THE
AD7243'TOP OF A ROUND CONCRETE MONUMENT RECESSED 0.6 FT BELOW THE LEVEL OF
AD7243'THE GROUND AND BELOW THE LEVEL OF THE PAVED ROAD BROWNS FARM ROAD
AD7243'(STATE ROAD 827).
AD7243'
AD7243'LOCATED 33.0 FT SOUTHEAST OF THE NORTHEAST CORNER OF PUMP STRUCTURE
AD7243'S-6, 11.3 FT SOUTHWEST OF A METAL GUARDRAIL AND 3.8 FT SOUTH OF THE
AD7243'END OF THE DAM STRUCTURE.
AD7243'
AD7243'NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE
AD7243'MONUMENT.
AD7243'
AD7243'NOTE AUTHORIZED PERSONNEL ONLY BEYOND THIS POINT.
AD7243'
AD7243'NOTE FOR KEY CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT,
AD7243'CLEWISTON FIELD STATION, PHONE 941-983-1431.
AD7243
AD7243   STATION RECOVERY (2002)
AD7243
AD7243'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD7243'THE MONUMENT WAS RECOVERED AS DESCRIBED.
AD7243'
AD7243'STATION RECOVERY (2002)
AD7243'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD7243'RECOVERED AS DESCRIBED.
AD7243'
AD7243'

*** retrieval complete.
Elapsed Time = 00:00:01

The NGS Data SheetSee file dsdata.txt for more information about the
datasheet.DATABASE = ,PROGRAM = datasheet, VERSION = 7.59
1   National Geodetic Survey,   Retrieval Date = APRIL 8, 2008
AE6414 ***
AE6414 DESIGNATION - FCE 4544   **(TRANSFERRED TO CP1231)**
AE6414 PID   - AE6414
AE6414 STATE/COUNTY- FL/GLADES
AE6414 USGS QUAD   - BRIGHTON SE (1983)
AE6414
AE6414   *CURRENT SURVEY CONTROL
AE6414 ____
AE6414* NAD 83(1986)- 27 05 34.   (N)   081 00 23.   (W)   SCALED
AE6414* NAVD 88   -   7.876 (meters)   25.84   (feet) ADJUSTED
AE6414 ____
AE6414 GEOID HEIGHT-   -25.73 (meters)   GEOID03
AE6414 DYNAMIC HT -   7.864 (meters)   25.80 (feet) COMP
AE6414 MODELED GRAV-   979,100.1   (mgal)   NAVD 88
AE6414
AE6414 VERT ORDER - SECOND   CLASS I
AE6414
AE6414.The horizontal coordinates were scaled from a topographic map and have
AE6414.an estimated accuracy of +/- 6 seconds.
AE6414
AE6414.The orthometric height was determined by differential leveling
AE6414.and adjusted in March 1998.
AE6414
AE6414.The geoid height was determined by GEOID03.
AE6414
AE6414.The dynamic height is computed by dividing the NAVD 88
AE6414.geopotential number by the normal gravity value computed on the
AE6414.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AE6414.degrees latitude (g = 980.6199 gals.).
AE6414
AE6414.The modeled gravity was interpolated from observed gravity values.
AE6414
AE6414;   North   East   Units Estimated Accuracy
AE6414;SPC FL E   -   305,680.   199,370.   MT (+/- 180 meters Scaled)
AE6414
AE6414   SUPERSEDED SURVEY CONTROL
AE6414
AE6414.No superseded survey control is available for this station.
AE6414
AE6414_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK993967(NAD 83)
AE6414_MARKER: DD = SURVEY DISK
AE6414_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE
AE6414_SP_SET: FLOOD CONTROL GATE
AE6414_STAMPING: FCE 4544 1994 JAX FLA
AE6414_MARK LOGO: USE
AE6414_MAGNETIC: N = NO MAGNETIC MATERIAL
AE6414_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

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 AE6414_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AE6414+SATELLITE: SATELLITE OBSERVATIONS - February 08, 1995
 AE6414
 AE6414  HISTORY     - Date     Condition        Report By
 AE6414  HISTORY     - 1994     MONUMENTED       USE
 AE6414  HISTORY     - 19950208 GOOD             FLDEP
 AE6414
 AE6414                          STATION DESCRIPTION
 AE6414
 AE6414'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
 AE6414'THE MARK IS ABOUT 10.6 MI (17.1 KM) NORTHEAST OF LAKEPORT IN SECTION
 AE6414'15, TOWNSHIP 39 SOUTH, RANGE 33 EAST. TO REACH THE MARK FROM THE
 AE6414'INTERSECTION OF STATE ROAD 78 AND STATE ROAD 74 IN LAKEPORT, GO
 AE6414'NORTHEAST ON STATE ROAD 78 FOR 10.5 MI (16.9 KM) TO THE WEST END OF
 AE6414'THE BRIDGE OVER CANALC 40 (INDIAN RIVER CANAL) AND A LOCKED GATE ON
 AE6414'THE LEFT, TURN LEFT PASSING THROUGH THE GATE, GO NORTH ON WEST LEVEE
 AE6414'ROAD FOR 2.45 MI (3.94 KM) TO A LOCKED GATE, PASSING THROUGH THE GATE
 AE6414'CONTINUE NORTH ON THE LEVEE ROAD FOR 0.1 MI (0.2 KM) TO FLOOD CONTROL
 AE6414'GATE S 72 ON THE RIGHT AND THE MARK SET FLUSH IN THE SOUTHEAST CORNER
 AE6414'OF THE STRUCTURE. LOCATED 61.4 FT (18.7 M) SOUTHWEST OF THE SOUTHEAST
 AE6414'CORNER OF THE STRUCTURE, 17.2 FT (5.2 M) SOUTH OF A CONCRETE GATE
 AE6414'CONTROL COLUMN AND 9.3 FT (2.8 M) SOUTH OF THE APPROXIMATE CENTERLINE
 AE6414'OF THE BRIDGE OVER THE STRUCTURE. NOTE ALL GATES ON LEVEE ARE LOCKED,
 AE6414'FOR KEY CONTACT CARL ZEISS, SOUTH FLORIDA WATER MANAGEMENT DISTRICT,
 AE6414'WEST PALM BEACH, FL.  PHONE NUMBER (407) 686-8800.

 *** retrieval complete.
 Elapsed Time = 00:00:00

 The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AE6446 ***********************************************************************
 AE6446  DESIGNATION -  H 19                    (TRANSFERRED TO CP1115)
 AE6446  PID         -  AE6446
 AE6446  STATE/COUNTY-  FL/HIGHLANDS
 AE6446  USGS QUAD   -  BRIGHTON (1972)
 AE6446
 AE6446                         *CURRENT SURVEY CONTROL
 AE6446  ______________________________________________________________________
 AE6446* NAD 83(1986)-  27 12 57.     (N)    081 00 15.     (W)     SCALED
 AE6446* NAVD 88     -         8.957  (meters)      29.39   (feet)  ADJUSTED
 AE6446  ______________________________________________________________________
 AE6446  GEOID HEIGHT-         -26.13  (meters)                     GEOID03
 AE6446  DYNAMIC HT  -           8.943 (meters)      29.34  (feet)  COMP
 AE6446  MODELED GRAV-     979,099.5   (mgal)                       NAVD 88
 AE6446
 AE6446  VERT ORDER  -  SECOND    CLASS I
 AE6446
 AE6446.The horizontal coordinates were scaled from a topographic map and have
 AE6446.an estimated accuracy of +/- 6 seconds.
 AE6446
 AE6446.The orthometric height was determined by differential leveling
 AE6446.and adjusted in March 1998.
 AE6446
 AE6446.The geoid height was determined by GEOID03.
 AE6446
 AE6446.The dynamic height is computed by dividing the NAVD 88
 AE6446.geopotential number by the normal gravity value computed on the
 AE6446.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AE6446.degrees latitude (g = 980.6199 gals.).
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AE6446
AE6446.The modeled gravity was interpolated from observed gravity values.
AE6446
AE6446;   North   East   Units Estimated Accuracy
AE6446;SPC FL E   -   319,320.   199,590.   MT (+/- 180 meters Scaled)
AE6446
AE6446   SUPERSEDED SURVEY CONTROL
AE6446
AE6446.No superseded survey control is available for this station.
AE6446
AE6446_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML995103(NAD 83)
AE6446_MARKER: DD = SURVEY DISK
AE6446_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE
AE6446_SP_SET: BRIDGE ABUTMENT
AE6446_STAMPING: H 19 1972
AE6446_MARK LOGO: FLCSFC
AE6446_MAGNETIC: N = NO MAGNETIC MATERIAL
AE6446_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AE6446_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE6446+SATELLITE: SATELLITE OBSERVATIONS - February 14, 1995
AE6446
AE6446 HISTORY   - Date   Condition   Report By
AE6446 HISTORY   - 1972   MONUMENTED   FLCSFC
AE6446 HISTORY   - 19950214 GOOD   FLDEP
AE6446
AE6446   STATION DESCRIPTION
AE6446
AE6446'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
AE6446'THE MARK IS ABOUT 22.9 MI (36.9 KM) SOUTHEAST OF LAKE PLACID, 10.9 MI
AE6446'(17.5 KM) SOUTHWEST OF OKEECHOBEE IN SECTION 35, TOWNSHIP 37 SOUTH,
AE6446'RANGE 33 EAST. TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD
AE6446'70 AND U.S. HIGHWAY 441 IN OKEECHOBEE, GO WEST ON STATE ROAD 70 FOR
AE6446'4.05 MI (6.52 KM) TO THE EAST END OF THE BRIDGE OVER PAPOSH SLOUGH,
AE6446'CONTINUE WEST ON STATE ROAD 70 FOR 5.35 MI (8.61 KM) TO THE EAST END
AE6446'OF THE BRIDGE OVER THE KISSIMMEE RIVER, CONTINUE WEST ON STATE ROAD 70
AE6446'FOR 1.45 MI (2.33 KM) TO THE JUNCTION OF RUCKS DAIRY ROAD ON THE LEFT,
AE6446'TURN LEFT ON RUCKS DAIRY ROAD AND GO SOUTH FOR 1.35 MI (2.17 KM) TO A
AE6446'BRIDGE OVER CANAL C 41-A AND THE MARK SET IN THE NORTHEAST ABUTMENT OF
AE6446'THE BRIDGE OVER CANAL C 41-A. THE MARK CAN ALSO BE REACHED FROM THE
AE6446'INTERSECTION OF STATE ROAD 70 AND COUNTY ROAD 721 WEST OF OKECHOBEE,
AE6446'GO NORTHEAST ON STATE ROAD 70 FOR 0.90 MI (1.45 KM) TO THE WEST END OF
AE6446'THE BRIDGE OVER CANAL C 41-A AND A LOCKED GATE ON THE RIGHT, TURN
AE6446'RIGHT PASSING THROUGH THE GATE AND GO SOUTH THEN EAST ON SOUTH LEVEE
AE6446'ROAD OF CANAL C 41-A FOR 2.7 MI (4.3 KM) TO A BRIDGE ON THE LEFT,
AE6446'CONTINUE EAST ON THE LEVEE ROAD FOR 1.05 MI (1.69 KM) TO ANOTHER
AE6446'BRIDGE ON THE LEFT, CONTINUE EAST ON THE LEVEE ROAD FOR 1.0 MI (1.6
AE6446'KM) TO ANOTHER BRIDGE ON THE LEFT, CONTINUE EAST ON THE LEVEE ROAD FOR
AE6446'0.50 MI (0.80 KM) TO THE INTERSECTION OF RUCKS DAIRY ROAD, TURN LEFT
AE6446'ON RUCKS DAIRY ROAD AND GO NORTH FOR 0.05 MI (0.08 KM) PASSING OVER
AE6446'CANAL C 41-A BRIDGE AND THE MARK ON THE RIGHT, SET IN THE NORTHEAST
AE6446'BRIDGE ABUTMENT. LOCATED 13.2 FT (4.0 M) EAST OF THE APPROXIMATE
AE6446'CENTERLINE OF THE BRIDGE (RUCKS DAIRY ROAD), 2.0 FT (0.6 M) SOUTHWEST
AE6446'OF A CARSONITE WITNESS POST AND 1.5 FT (0.5 M) SOUTHWEST OF THE
AE6446'NORTHEAST EDGE OF THE ABUTMENT. NOTE AGENCY INSCRIPTION ON THE DISK IS
AE6446'CENTRAL SOUTH FLORIDA FLOOD CONTROL DISTRICT, PRESENT NAME IS SOUTH
AE6446'FLORIDA WATER MANAGEMENT DISTRICT. NOTE ALL GATES ON LEVEE ARE LOCKED,
AE6446'FOR KEY CONTACT CARL ZEISS, SOUTH FLORIDA WATER MANAGEMENT DISTRICT,
AE6446'WEST PALM BEACH, FL. PHONE NUMBER (407) 686-8800.

*** retrieval complete.
Elapsed Time = 00:00:00

1 National Geodetic Survey, Retrieval Date = JULY 25, 2007

AI1519 **
AI1519 DESIGNATION - HEN 23 **(TRANSFERRED TO CP1215)**
AI1519 PID - AI1519
AI1519 STATE/COUNTY- FL/HENDRY
AI1519 USGS QUAD - LAKE HARBOR SW (1994)
AI1519
AI1519 *CURRENT SURVEY CONTROL
AI1519 --
AI1519* NAD 83(1986)- 26 32 13. (N) 080 56 53. (W) SCALED
AI1519* NAVD 88 - 7.775 (meters) 25.51 (feet) ADJUSTED
AI1519 --
AI1519 GEOID HEIGHT- -24.72 (meters) GEOID03
AI1519 DYNAMIC HT - 7.763 (meters) 25.47 (feet) COMP
AI1519 MODELED GRAV- 979,080.5 (mgal) NAVD 88
AI1519
AI1519 VERT ORDER - FIRST CLASS II
AI1519
AI1519.The horizontal coordinates were scaled from a topographic map and have
AI1519.an estimated accuracy of +/- 6 seconds.
AI1519
AI1519.The orthometric height was determined by differential leveling
AI1519.and adjusted by the NATIONAL GEODETIC SURVEY in October 1999.
AI1519
AI1519.The geoid height was determined by GEOID03.
AI1519
AI1519.The dynamic height is computed by dividing the NAVD 88
AI1519.geopotential number by the normal gravity value computed on the
AI1519.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AI1519.degrees latitude (g = 980.6199 gals.).
AI1519
AI1519.The modeled gravity was interpolated from observed gravity values.
AI1519
AI1519; North East Units Estimated Accuracy
AI1519;SPC FL E - 244,100. 205,180. MT (+/- 180 meters Scaled)
AI1519
AI1519 SUPERSEDED SURVEY CONTROL
AI1519
AI1519.No superseded survey control is available for this station.
AI1519
AI1519_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK051351(NAD 83)
AI1519_MARKER: DD = SURVEY DISK
AI1519_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AI1519_STAMPING: BM HEN-23 1983
AI1519_MARK LOGO: SFLWMD
AI1519_MAGNETIC: N = NO MAGNETIC MATERIAL
AI1519_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AI1519+STABILITY: SURFACE MOTION
AI1519_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AI1519+SATELLITE: SATELLITE OBSERVATIONS - October 02, 1996
AI1519
AI1519 HISTORY - Date Condition Report By
AI1519 HISTORY - 1983 MONUMENTED SFLWMD
AI1519 HISTORY - 19961002 GOOD FLDEP
AI1519 HISTORY - 20050908 GOOD INDIV
AI1519
AI1519 STATION DESCRIPTION
AI1519

AI1519'DESCRIBED BY FL DEPT OF ENV PRO 1996 (VAJ)
AI1519'THE MARK IS ABOUT 20.0 MI (32.2 KM) SOUTHWEST OF BELLE GLADE, 14.9 MI
AI1519'(24.0 KM) SOUTH OF CLEWISTON IN SECTION 28, TOWNSHIP 45 SOUTH, RANGE
AI1519'34 EAST. TO REACH THE MARK FROM THE POST OFFICE IN LAKE HARBOR, GO
AI1519'SOUTHERLY ON THE MIAMI CANAL ROAD (WEST SIDE OF CANAL) FOR 0.65 MI
AI1519'(1.05 KM) TO THE END OF THE PAVEMENT, CONTINUE SOUTH ON THE MIAMI
AI1519'CANAL ROAD FOR 2.35 MI (3.78 KM) TO THE JUNCTION OF ROGERS ROAD ON THE
AI1519'RIGHT, TURN RIGHT ON ROGERS ROAD AND GO WEST FOR 3.8 MI (6.1 KM) TO
AI1519'THE PALM BEACH-HENDRY COUNTY LINE, CONTINUE WEST ON ROGERS ROAD FOR
AI1519'0.95 MI (1.53 KM) TO A SHARP CURVE RIGHT, CONTINUE NORTH THEN WEST ON
AI1519'ROGERS ROAD FOR 0.05 (CROSSING OVER THE L1-E CANAL BRIDGE) TO THE
AI1519'Y-JUNCTION OF COUNTY ROAD 832, CONTINUE WEST ON COUNTY ROAD 832 FOR
AI1519'1.0 MI (1.6 KM) TO THE APPROXIMATE CENTER OF A SHARP CURVE LEFT AND
AI1519'BRIDGE NUMBER 302 OVER THE L1-E CANAL, CONTINUE THRU THE CURVE LEFT
AI1519'AND GO SOUTH ON COUNTY ROAD 832 FOR 1.95 MI (3.14 KM) TO THE
AI1519'APPROXIMATE CENTER OF A SHARP CURVE RIGHT, CONTINUE THRU THE CURVE
AI1519'RIGHT AND GO WEST ON COUNTY ROAD 832 FOR 2.0 MI (3.2 KM) TO THE L-2
AI1519'CANAL AND THE LEVEE ROAD ON THE LEFT (EAST SIDE OF CANAL) , TURN LEFT
AI1519'ON LEVEE ROAD NUMBER L-2 AND GO SOUTH FOR 6.1 MI (9.8 KM) TO A TURNOUT
AI1519'ON THE TOP OF THE LEVEE AND THE MARK ON THE RIGHT, SET IN THE TOP OF A
AI1519'ROUND CONCRETE MONUMENT RECESSED 0.5 FT (15.2 CM) BELOW THE LEVEL OF
AI1519'THE GROUND IN THE APPROXIMATE CENTER OF THE TURNOUT. LOCATED 42.2 FT
AI1519'(12.9 M) SOUTH OF THE APPROXIMATE NORTH END OF THE TURNOUT, 40.0 FT
AI1519'(12.2 M) NORTH OF THE APPROXIMATE SOUTH END OF THE TURNOUT, 32.1 FT
AI1519'(9.8 M) WEST OF THE APPROXIMATE CENTERLINE OF THE DIRT ROAD AT THE TOE
AI1519'OF THE LEVEE, 24.5 FT (7.5 M) WEST OF A CARSONITE WITNESS POST AND
AI1519'17.4 FT (5.3 M) EAST OF THE APPROXIMATE CENTERLINE OF THE DIM TRACK
AI1519'ROAD AT THE TOP OF THE LEVEE. NOTE CONTACT GENE TANNER, SOUTH FLORIDA
AI1519'WATER MANAGEMENT, REGIONAL DIRECTOR, CLEWISTON FIELD STATION, PHONE
AI1519'NUMBER 813-983-1431.
AI1519
AI1519 STATION RECOVERY (2005)
AI1519
AI1519'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2005 (DL)
AI1519'RECOVERED AS DESCRIBED

The NGS Data SheetSee file dsdata.txt for more information about the
datasheet.DATABASE = ,PROGRAM = datasheet, VERSION = 7.59
1 National Geodetic Survey, Retrieval Date = APRIL 8, 2008
AE6391 **
AE6391 DESIGNATION - H 437 **(TRANSFERRED TO CP1107)**
AE6391 PID - AE6391
AE6391 STATE/COUNTY- FL/HIGHLANDS
AE6391 USGS QUAD - BRIGHTON NW (1983)
AE6391
AE6391 *CURRENT SURVEY CONTROL
AE6391 ____
AE6391* NAD 83(1986)- 27 08 14. (N) 081 12 06. (W) SCALED
AE6391* NAVD 88 - 9.395 (meters) 30.82 (feet) ADJUSTED
AE6391 ____
AE6391 GEOID HEIGHT- -25.20 (meters) GEOID03
AE6391 DYNAMIC HT - 9.380 (meters) 30.77 (feet) COMP
AE6391 MODELED GRAV- 979,125.1 (mgal) NAVD 88

AE6391
AE6391 VERT ORDER - SECOND   CLASS I
AE6391
AE6391.The horizontal coordinates were scaled from a topographic map and have
AE6391.an estimated accuracy of +/- 6 seconds.
AE6391
AE6391.The orthometric height was determined by differential leveling
AE6391.and adjusted in March 1998.
AE6391
AE6391.The geoid height was determined by GEOID03.
AE6391
AE6391.The dynamic height is computed by dividing the NAVD 88
AE6391.geopotential number by the normal gravity value computed on the
AE6391.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AE6391.degrees latitude (g = 980.6199 gals.).
AE6391
AE6391.The modeled gravity was interpolated from observed gravity values.
AE6391
AE6391;   North   East   Units Estimated Accuracy
AE6391;SPC FL E   -   310,620.   180,010.   MT (+/- 180 meters Scaled)
AE6391
AE6391   SUPERSEDED SURVEY CONTROL
AE6391
AE6391.No superseded survey control is available for this station.
AE6391
AE6391_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML800016(NAD 83)
AE6391_MARKER: DV = VERTICAL CONTROL DISK
AE6391_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE
AE6391_SP_SET: BRIDGE ABUTMENT
AE6391_STAMPING: H 437 1995
AE6391_MARK LOGO: NGS
AE6391_MAGNETIC: N = NO MAGNETIC MATERIAL
AE6391_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AE6391_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE6391+SATELLITE: SATELLITE OBSERVATIONS - 1995
AE6391
AE6391 HISTORY   - Date   Condition   Report By
AE6391 HISTORY   - 1995   MONUMENTED   FLDEP
AE6391
AE6391   STATION DESCRIPTION
AE6391
AE6391'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
AE6391'THE MARK IS ABOUT 15.0 MI (24.1 KM) SOUTHEAST OF LAKE PLACID, 12.5 MI
AE6391'(20.1 KM) NORTHWEST OF LAKEPORT IN SECTION 27, TOWNSHIP 38 SOUTH,
AE6391'RANGE 31 EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY
AE6391'27 AND STATE ROAD 70 SOUTH OF LAKE PLACID, GO EAST ON STATE ROAD 70
AE6391'FOR 7.7 MI (12.4 KM) TO THE WEST END OF THE BRIDGE OVER CANAL C 41
AE6391'(HARNEY POND CANAL), TURN RIGHT AT THE WEST END OF BRIDGE, PASSING
AE6391'THROUGH THE GATE, GO SOUTH ON THE LEVEE ROAD FOR 1.05 MI (1.69 KM) TO
AE6391'A SHARP CURVE TO THE RIGHT, CONTINUE WEST ON THE LEVEE ROAD FOR 1.85
AE6391'MI (2.98 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTH ON THE LEVEE ROAD
AE6391'FOR 2.1 MI (3.4 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTHEAST ON THE
AE6391'LEVEE ROAD FOR 2.7 MI (4.3 KM) TO A BRIDGE ON THE LEFT AND THE MARK
AE6391'SET FLUSH IN THE SOUTHWEST BRIDGE ABUTMENT. LOCATED 41.7 FT (12.7 M)
AE6391'NORTH OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 18.9 FT (5.8 M)
AE6391'NORTH OF A CARSONITE WITNESS POST, 8.4 FT (2.6 M) WEST OF THE
AE6391'APPROXIMATE CENTERLINE OF THE BRIDGE AND 5.9 FT (1.8 M) SOUTH OF A
AE6391'GATE. NOTE ALL GATES ON LEVEE ARE LOCKED, FOR KEY CONTACT CARL ZEISS,
AE6391'SOUTH FLORIDA WATER MANAGEMENT DISTRICT, WEST PALM BEACH, FL. PHONE
AE6391'NUMBER (407) 686-8800.

*** retrieval complete.
Elapsed Time = 00:00:00

1 National Geodetic Survey, Retrieval Date = JULY 25, 2007
AD8259 **
AD8259 DESIGNATION - HEN 47 **(TRANSFERRED TO CP1087)**
AD8259 PID - AD8259
AD8259 STATE/COUNTY- FL/GLADES
AD8259 USGS QUAD - LAKE HICPOCHEE (1971)
AD8259
AD8259 *CURRENT SURVEY CONTROL
AD8259 ____
AD8259* NAD 83(1986)- 26 46 06. (N) 081 13 59. (W) SCALED
AD8259* NAVD 88 - 6.263 (meters) 20.55 (feet) ADJUSTED
AD8259 ____
AD8259 GEOID HEIGHT- -24.46 (meters) GEOID03
AD8259 DYNAMIC HT - 6.253 (meters) 20.52 (feet) COMP
AD8259 MODELED GRAV- 979,108.5 (mgal) NAVD 88
AD8259
AD8259 VERT ORDER - FIRST CLASS II
AD8259
AD8259.The horizontal coordinates were scaled from a topographic map and have
AD8259.an estimated accuracy of +/- 6 seconds.
AD8259
AD8259.The orthometric height was determined by differential leveling
AD8259.and adjusted by the NATIONAL GEODETIC SURVEY in September 1992.
AD8259
AD8259.The geoid height was determined by GEOID03.
AD8259
AD8259.The dynamic height is computed by dividing the NAVD 88
AD8259.geopotential number by the normal gravity value computed on the
AD8259.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8259.degrees latitude (g = 980.6199 gals.).
AD8259
AD8259.The modeled gravity was interpolated from observed gravity values.
AD8259
AD8259; North East Units Estimated Accuracy
AD8259;SPC FL E - 269,760. 176,820. MT (+/- 180 meters Scaled)
AD8259
AD8259 SUPERSEDED SURVEY CONTROL
AD8259
AD8259 NGVD 29 (09/01/92) 6.659 (m) 21.85 (f) ADJUSTED 1 2
AD8259
AD8259.Superseded values are not recommended for survey control.
AD8259.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8259.See file dsdata.txt to determine how the superseded data were derived.
AD8259
AD8259_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK768607(NAD 83)
AD8259_MARKER: DD = SURVEY DISK
AD8259_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE
AD8259_SP_SET: ABUTMENT
AD8259_STAMPING: HEN-47 1983 BM
AD8259_MARK LOGO: SFLWMD
AD8259_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8259_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8259_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8259+SATELLITE: SATELLITE OBSERVATIONS - February 20, 2003
AD8259
AD8259 HISTORY - Date Condition Report By
AD8259 HISTORY - 1983 MONUMENTED SFLWMD

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 AD8259  HISTORY     - 19920401 GOOD             NGS
 AD8259  HISTORY     - 20030220 GOOD             PICKET
 AD8259
 AD8259                          STATION DESCRIPTION
 AD8259
 AD8259'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
 AD8259'20.5 KM (12.75 MI) EASTERLY ALONG STATE HIGHWAY 80 FROM THE COUNTY
 AD8259'COURTHOUSE IN LA BELLE, IN TOP OF AND 0.1 M (0.3 FT) SOUTH OF THE
 AD8259'NORTH END OF THE EAST CONCRETE ABUTMENT OF BRIDGE NUMBER 070055
 AD8259'SPANNING A CANAL, 7.1 M (23.3 FT) NORTH OF THE CENTERLINE OF THE
 AD8259'HIGHWAY, 0.5 M (1.6 FT) WEST OF THE NORTHWEST CORNER OF A GUARDRAIL,
 AD8259'AND 0.3 M (1.0 FT) BELOW THE LEVEL OF THE HIGHWAY.
 AD8259
 AD8259                          STATION RECOVERY (2003)
 AD8259
 AD8259'RECOVERY NOTE BY PICKETT AND ASSOCIATES 2003 (KR)
 AD8259'RECOVERED IN GOOD CONDITION.
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AJ6777 ***********************************************************************
 AJ6777  DESIGNATION -  H 535              (TRANSFERRED TO CP1068)
 AJ6777  PID         -  AJ6777
 AJ6777  STATE/COUNTY-  FL/HENDRY
 AJ6777  USGS QUAD   -  ROCKY LAKE STRAND (1974)
 AJ6777
 AJ6777                         *CURRENT SURVEY CONTROL
 AJ6777  ______________________________________________________________________
 AJ6777* NAD 83(2007)-  26 25 54.65746(N)    081 01 15.82670(W)     ADJUSTED
 AJ6777* NAVD 88     -         6.864  (meters)      22.52   (feet)  ADJUSTED
 AJ6777  ______________________________________________________________________
 AJ6777  EPOCH DATE  -        2002.00
 AJ6777  X           -     891,974.480 (meters)                     COMP
 AJ6777  Y           -  -5,645,135.772 (meters)                     COMP
 AJ6777  Z           -   2,821,977.484 (meters)                     COMP
 AJ6777  LAPLACE CORR-          -0.65  (seconds)                    DEFLEC99
 AJ6777  ELLIP HEIGHT-         -17.858 (meters)          (02/10/07) ADJUSTED
 AJ6777  GEOID HEIGHT-         -24.72  (meters)                     GEOID03
 AJ6777  DYNAMIC HT  -           6.854 (meters)      22.49  (feet)  COMP
 AJ6777
 AJ6777  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AJ6777  Type    PID    Designation                       North   East  Ellip
 AJ6777  ----------------------------------------------------------------------
 AJ6777  NETWORK AJ6777 H 535                              1.02   1.14   2.04
 AJ6777  ----------------------------------------------------------------------
 AJ6777  MODELED GRAV-     979,059.9   (mgal)                      NAVD 88
 AJ6777
 AJ6777  VERT ORDER  -  FIRST     CLASS II
 AJ6777
 AJ6777.The horizontal coordinates were established by GPS observations
 AJ6777.and adjusted by the National Geodetic Survey in February 2007.
 AJ6777
 AJ6777.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
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AJ6777.See National Readjustment for more information.
AJ6777.The horizontal coordinates are valid at the epoch date displayed above.
AJ6777.The epoch date for horizontal control is a decimal equivalence
AJ6777.of Year/Month/Day.
AJ6777
AJ6777.The orthometric height was determined by differential leveling
AJ6777.and adjusted in January 2002.
AJ6777
AJ6777.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ6777
AJ6777.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ6777
AJ6777.The ellipsoidal height was determined by GPS observations
AJ6777.and is referenced to NAD 83.
AJ6777
AJ6777.The geoid height was determined by GEOID03.
AJ6777
AJ6777.The dynamic height is computed by dividing the NAVD 88
AJ6777.geopotential number by the normal gravity value computed on the
AJ6777.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6777.degrees latitude (g = 980.6199 gals.).
AJ6777
AJ6777.The modeled gravity was interpolated from observed gravity values.
AJ6777
AJ6777;   North   East   Units Scale Factor Converg.
AJ6777;SPC FL E   -   232,457.355   197,899.117   MT 0.99994123   -0 00 33.8
AJ6777;SPC FL E   -   762,653.84   649,274.02   sFT 0.99994123   -0 00 33.8
AJ6777;UTM 17   - 2,923,510.023   497,899.834   MT 0.99960005   -0 00 33.8
AJ6777
AJ6777!   - Elev Factor x Scale Factor =   Combined Factor
AJ6777!SPC FL E   -   1.00000281 x   0.99994123 =   0.99994404
AJ6777!UTM 17   -   1.00000281 x   0.99960005 =   0.99960285
AJ6777
AJ6777   SUPERSEDED SURVEY CONTROL
AJ6777
AJ6777 NAD 83(1999)- 26 25 54.65762(N)   081 01 15.82656(W) AD(   ) 1
AJ6777 ELLIP H (12/12/02) -17.853 (m)   GP(   ) 2 2
AJ6777 NAVD 88 (12/12/02)   6.87   (m)   22.5   (f) LEVELING   3
AJ6777
AJ6777.Superseded values are not recommended for survey control.
AJ6777.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6777.See file dsdata.txt to determine how the superseded data were derived.
AJ6777
AJ6777_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK9790023510(NAD 83)
AJ6777_MARKER: DD = SURVEY DISK
AJ6777_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6777_STAMPING: H 535 2001 CERP
AJ6777_MARK LOGO: USE
AJ6777_PROJECTION: RECESSED 10 CENTIMETERS
AJ6777_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6777_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6777+STABILITY: SURFACE MOTION
AJ6777_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6777+SATELLITE: SATELLITE OBSERVATIONS - 2002
AJ6777
AJ6777 HISTORY   - Date   Condition   Report By
AJ6777 HISTORY   - 20010716 MONUMENTED   MOREKL
AJ6777 HISTORY   - 2002   GOOD   MAPTEC
AJ6777
AJ6777   STATION DESCRIPTION
AJ6777

AJ6777'DESCRIBED BY MORGAN AND EKLUND INC 2001 (PDW)
AJ6777'THE STATION IS LOCATED ABOUT 36.9 KM (22.9 MILES) SOUTH SOUTHWEST OF
AJ6777'CLEWISTON, ABOUT
AJ6777'40.3 KM (25.0 MILES) EAST OF IMMOKALEE, ABOUT 65.8 KM (40.9 MILES)
AJ6777'NORTHWEST OF ANDYTOWN, IN
AJ6777'SECTION 34, TOWNSHIP 46 SOUTH, RANGE 33 EAST.
AJ6777'
AJ6777'OWNERSHIP   HENDRY COUNTY (ROAD RIGHT OF WAY)
AJ6777'
AJ6777'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 80 AND COUNTY
AJ6777'ROAD 833, ABOUT
AJ6777'19.4 KM (12.0 MILES) WEST OF CLEWISTON, GO SOUTH ALONG COUNTY ROAD 833
AJ6777'FOR 32.5 KM (20.2
AJ6777'MILES) TO THE JUNCTION OF COUNTY ROAD 846, GO EAST ON COUNTY ROAD
AJ6777'846/833 FOR 9.6 KM (6.0
AJ6777'MILES) TO A 90 DEGREE BEND TO THE SOUTH, CONTINUE SOUTH ON COUNTY ROAD
AJ6777'833 FOR 3.2 KM
AJ6777'(2.0 MILES) TO THE JUNCTION OF COUNTY ROAD 835 (ALSO KNOWN AS COUNTY
AJ6777'ROAD 846), GO EAST
AJ6777'ON COUNTY ROAD 835 FOR 0.6 KM (0.4 MILES) AND THE MARK ON THE LEFT.
AJ6777'
AJ6777'THE MARK IS 74.7 METERS (245.0 FEET) NORTHEAST OF A WOOD UTILITY POLE,
AJ6777'59.4 METERS (195.0
AJ6777'FEET) NORTHWEST OF A WOOD UTILITY POLE, 51.7 METERS (169.5 FEET) EAST
AJ6777'OF A 24 INCH TWIN OAK
AJ6777'TREE, 7.5 METERS (24.5 FEET) NORTH OF THE CENTERLINE OF ASHPALT ROAD
AJ6777'(C.R. 835), 5.9 METERS
AJ6777'(19.4 FEET) SOUTH OF A CARSONITE WITNESS POST.
AJ6777'
AJ6777'A MAGNET WAS PLACED 0.18 METERS (0.6 FEET) SOUTH OF AND 0.1 METER
AJ6777'(0.33 FEET) BELOW THE
AJ6777'MARK.
AJ6777'
AJ6777'
AJ6777
AJ6777   STATION RECOVERY (2002)
AJ6777
AJ6777'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ6777'THE STATION IS LOCATED ABOUT 36.9 KM (22.9 MILES) SOUTH SOUTHWEST OF
AJ6777'CLEWISTON, ABOUT
AJ6777'40.3 KM (25.0 MILES) EAST OF IMMOKALEE, ABOUT 65.8 KM (40.9 MILES)
AJ6777'NORTHWEST OF ANDYTOWN, IN
AJ6777'SECTION 34, TOWNSHIP 46 SOUTH, RANGE 33 EAST.
AJ6777'
AJ6777'OWNERSHIP   HENDRY COUNTY (ROAD RIGHT OF WAY)
AJ6777'
AJ6777'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 80 AND COUNTY
AJ6777'ROAD 833, ABOUT
AJ6777'19.4 KM (12.0 MILES) WEST OF CLEWISTON, GO SOUTH ALONG COUNTY ROAD 833
AJ6777'FOR 32.5 KM (20.2
AJ6777'MILES) TO THE JUNCTION OF COUNTY ROAD 846, GO EAST ON COUNTY ROAD
AJ6777'846/833 FOR 9.6 KM (6.0
AJ6777'MILES) TO A 90 DEGREE BEND TO THE SOUTH, CONTINUE SOUTH ON COUNTY ROAD
AJ6777'833 FOR 3.2 KM
AJ6777'(2.0 MILES) TO THE JUNCTION OF COUNTY ROAD 835 (ALSO KNOWN AS COUNTY
AJ6777'ROAD 846), GO EAST
AJ6777'ON COUNTY ROAD 835 FOR 0.6 KM (0.4 MILES) AND THE MARK ON THE LEFT.
AJ6777'
AJ6777'THE MARK IS 74.7 METERS (245.0 FEET) NORTHEAST OF A WOOD UTILITY POLE,
AJ6777'59.4 METERS (195.0
AJ6777'FEET) NORTHWEST OF A WOOD UTILITY POLE, 51.7 METERS (169.5 FEET) EAST

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 AJ6777'OF A 24 INCH TWIN OAK
 AJ6777'TREE, 7.5 METERS (24.5 FEET) NORTH OF THE CENTERLINE OF ASHPALT ROAD
 AJ6777'(C.R. 835), 5.9 METERS
 AJ6777'(19.4 FEET) SOUTH OF A CARSONITE WITNESS POST.
 AJ6777'
 AJ6777'A MAGNET WAS PLACED 0.18 METERS (0.6 FEET) SOUTH OF AND 0.1 METER
 AJ6777'(0.33 FEET) BELOW THE
 AJ6777'MARK.
 AJ6777'
 AJ6777'STATION RECOVERY (2002)
 AJ6777'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
 AJ6777'RECOVERED AS DESCRIBED.
 AJ6777'
 AJ6777'

 *** retrieval complete.
 Elapsed Time = 00:00:00


1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
AJ3479 ***********************************************************************
 AJ3479  DESIGNATION -  HIATUS (Transferred to CP1205)
 AJ3479  PID         -  AJ3479
 AJ3479  STATE/COUNTY-  FL/PALM BEACH
 AJ3479  USGS QUAD   -  SOUTH OF OKEELANTA (1974)
 AJ3479
 AJ3479                        *CURRENT SURVEY CONTROL
 AJ3479  ______________________________________________________________________
 AJ3479* NAD 83(1986)-  26 28 17.     (N)    080 38 33.     (W)     SCALED
 AJ3479* NAVD 88     -         4.715  (meters)      15.47   (feet)  ADJUSTED
 AJ3479  ______________________________________________________________________
 AJ3479  GEOID HEIGHT-         -24.94  (meters)                     GEOID03
 AJ3479  DYNAMIC HT  -           4.708 (meters)      15.45  (feet)  COMP
 AJ3479  MODELED GRAV-     979,082.6   (mgal)                       NAVD 88
 AJ3479
 AJ3479  VERT ORDER  -  SECOND    CLASS I
 AJ3479
 AJ3479.The horizontal coordinates were scaled from a topographic map and have
 AJ3479.an estimated accuracy of +/- 6 seconds.
 AJ3479
 AJ3479.The orthometric height was determined by differential leveling
 AJ3479.and adjusted by the NATIONAL GEODETIC SURVEY in September 2001.
 AJ3479
 AJ3479.The geoid height was determined by GEOID03.
 AJ3479
 AJ3479.The dynamic height is computed by dividing the NAVD 88
 AJ3479.geopotential number by the normal gravity value computed on the
 AJ3479.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ3479.degrees latitude (g = 980.6199 gals.).
 AJ3479
 AJ3479.The modeled gravity was interpolated from observed gravity values.
 AJ3479
 AJ3479;                    North         East     Units  Estimated Accuracy
 AJ3479;SPC FL E     -   236,890.      235,650.      MT  (+/- 180 meters Scaled)
 AJ3479
 AJ3479                          SUPERSEDED SURVEY CONTROL
 AJ3479
 AJ3479.No superseded survey control is available for this station.
 AJ3479
 AJ3479_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK356279(NAD 83)
 AJ3479_MARKER: DD = SURVEY DISK
```

AJ3479_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ3479_STAMPING: HIATUS
AJ3479_MARK LOGO: FL-099
AJ3479_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ3479_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ3479+STABILITY: SURFACE MOTION
AJ3479_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ3479+SATELLITE: SATELLITE OBSERVATIONS - November 22, 2004
AJ3479

AJ3479	HISTORY	- Date	Condition	Report By
AJ3479	HISTORY	- UNK	MONUMENTED	FL-099
AJ3479	HISTORY	- 20000122	GOOD	FLDEP
AJ3479	HISTORY	- 20021105	GOOD	NGS
AJ3479	HISTORY	- 20041122	GOOD	WEIDEN

AJ3479
AJ3479 STATION DESCRIPTION
AJ3479
AJ3479'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ3479'THE MARK IS ABOUT 24.3 MI (39.1 KM) NORTHWEST OF ANDYTOWN, 14.85 MI
AJ3479'(23.90 KM) SOUTHWEST OF SOUTH BAY ON LEVEE 19, IN SECTION 4, TOWNSHIP
AJ3479'46 SOUTH, RANGE 37 EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S.
AJ3479'HIGHWAY 27 AND STATE ROAD 80 IN SOUTH BAY, GO SOUTH ON U.S. HIGHWAY 27
AJ3479'FOR 3.8 MI (6.1 KM) TO THE JUNCTION OF COUNTY ROAD 827, CONTINUE SOUTH
AJ3479'ON U.S. HIGHWAY 27 FOR 9.75 MI (15.69 KM) TO A CONCRETE BRIDGE OVER
AJ3479'THE NORTH NEW RIVER CANAL, TURN LEFT CROSSING OVER THE BRIDGE TO THE
AJ3479'EAST END AND THE JUNCTION OF LEVEE 18 ON THE RIGHT PARALELLING THE
AJ3479'NORTH NEW RIVER CANAL, TURN RIGHT ON LEVEE 18 AND GO SOUTH FOR 1.0 MI
AJ3479'(1.6 KM) TO THE INTERSECTION OF A PAVED ROAD TO HACIEDA OKEELANTA
AJ3479'SUGAR FARMS AND THE MARK ON THE RIGHT, A PALM BEACH COUNTY GPS SURVEY
AJ3479'MARK RECESSED 0.4 FT (12.2 CM) BELOW THE LEVEL OF THE GROUND AND BELOW
AJ3479'THE LEVEL OF THE LEVEE ROAD. LOCATED 178.0 FT (54.3 M) NORTHEAST OF
AJ3479'AND ACROSS THE NORTH NEW RIVER CANAL OF THE CENTERLINE OF THE
AJ3479'NORTHBOUND LANES OF U.S. HIGHWAY 27, 36.0 FT (11.0 M) SOUTHWEST OF THE
AJ3479'APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 35.5 FT (10.8 M) NORTH OF
AJ3479'THE NORTHEAST CORNER OF A BRIDGE ROAD, 31.0 FT (9.4 M) NORTHWEST OF
AJ3479'THE APPROXIMATE CENTERLINE OF THE PAVED CROSSOVER ROAD AND 2.0 FT (0.6
AJ3479'M) EAST OF A PALM BEACH COUNTY METAL WITNESS POST.
AJ3479
AJ3479 STATION RECOVERY (2002)
AJ3479
AJ3479'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002
AJ3479'RECOVERED IN GOOD CONDITION.
AJ3479
AJ3479 STATION RECOVERY (2004)
AJ3479
AJ3479'RECOVERY NOTE BY WEIDENER SURVEYING AND MAPPING 2004
AJ3479'RECOVERED AS DESCRIBED
1 National Geodetic Survey, Retrieval Date = JULY 25, 2007
AF6685 **

AF6685	DESIGNATION -	L 357	**(TRANSFERRED TO CP1002)**
AF6685	PID -	AF6685	
AF6685	STATE/COUNTY-	FL/OKEECHOBEE	
AF6685	USGS QUAD -	OKEECHOBEE (1972)	

AF6685
AF6685 *CURRENT SURVEY CONTROL
AF6685 ____

AF6685*	NAD 83(1986)-	27 15 00. (N)	080 47 28.	(W)		SCALED
AF6685*	NAVD 88 -	7.852 (meters)	25.76	(feet)		ADJUSTED

AF6685 ____

AF6685	GEOID HEIGHT-	-26.71 (meters)			GEOID03
AF6685	DYNAMIC HT -	7.840 (meters)	25.72	(feet)	COMP

AF6685 MODELED GRAV-   979,096.5   (mgal)   NAVD 88
AF6685
AF6685 VERT ORDER - FIRST   CLASS II
AF6685
AF6685.The horizontal coordinates were scaled from a topographic map and have
AF6685.an estimated accuracy of +/- 6 seconds.
AF6685
AF6685.The orthometric height was determined by differential leveling
AF6685.and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.
AF6685
AF6685.The geoid height was determined by GEOID03.
AF6685
AF6685.The dynamic height is computed by dividing the NAVD 88
AF6685.geopotential number by the normal gravity value computed on the
AF6685.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AF6685.degrees latitude (g = 980.6199 gals.).
AF6685
AF6685.The modeled gravity was interpolated from observed gravity values.
AF6685
AF6685;   North   East   Units Estimated Accuracy
AF6685;SPC FL E   -   323,120.   220,690.   MT (+/- 180 meters Scaled)
AF6685
AF6685   SUPERSEDED SURVEY CONTROL
AF6685
AF6685 NGVD 29 (09/01/92)   8.222 (m)   26.98   (f) ADJUSTED   1 2
AF6685
AF6685.Superseded values are not recommended for survey control.
AF6685.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AF6685.See file dsdata.txt to determine how the superseded data were derived.
AF6685
AF6685_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL206141(NAD 83)
AF6685_MARKER: DB = BENCH MARK DISK
AF6685_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AF6685_SP_SET: STAINLESS STEEL ROD
AF6685_STAMPING: L 357 1979
AF6685_PROJECTION: PROJECTING 5 CENTIMETERS
AF6685_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AF6685_ROD/PIPE-DEPTH: 12.2 meters
AF6685
AF6685 HISTORY   - Date   Condition   Report By
AF6685 HISTORY   - 1979   MONUMENTED   NGS
AF6685
AF6685   STATION DESCRIPTION
AF6685
AF6685'DESCRIBED BY NATIONAL GEODETIC SURVEY 1979
AF6685'2.4 MI EAST FROM OKEECHOBEE.
AF6685'2.4 MILES EAST ALONG STATE HIGHWAY 70 FROM THE CITY HALL IN
AF6685'OKEECHOBEE, AT A PAVED ROAD LEADING SOUTH, 54 FEET EAST OF THE
AF6685'CENTERLINE OF THE PAVED ROAD, 39 FEET SOUTH OF THE CENTERLINE OF THE
AF6685'HIGHWAY, 12 FEET NORTHEAST OF A SKY LAKE TWIN DRIVE-IN SIGN, 2 FEET
AF6685'SOUTH OF A UTILITY POLE AND 1 FOOT NORTH OF A FENCE CORNER.

The NGS Data SheetSee file dsdata.txt for more information about the
datasheet.DATABASE = ,PROGRAM = datasheet, VERSION = 7.59
1   National Geodetic Survey,   Retrieval Date = APRIL 8, 2008
AJ6780 **
AJ6780 DESIGNATION - L 535   **(TRANSFERRED TO CP1069)**
AJ6780 PID   - AJ6780
AJ6780 STATE/COUNTY- FL/HENDRY
AJ6780 USGS QUAD   - ROCKY LAKE STRAND (1974)
AJ6780
AJ6780   *CURRENT SURVEY CONTROL
AJ6780 ____
AJ6780* NAD 83(2007)- 26 27 37.51909(N)   081 01 43.26049(W)   ADJUSTED
AJ6780* NAVD 88   -   7.917 (meters)   25.97   (feet) ADJUSTED
AJ6780 ____
AJ6780 EPOCH DATE -   2002.00
AJ6780 X   -   891,003.952 (meters)   COMP
AJ6780 Y   - -5,643,862.708 (meters)   COMP
AJ6780 Z   -   2,824,812.388 (meters)   COMP
AJ6780 LAPLACE CORR-   -0.65 (seconds)   DEFLEC99
AJ6780 ELLIP HEIGHT-   -16.765 (meters)   (02/10/07) ADJUSTED
AJ6780 GEOID HEIGHT-   -24.69 (meters)   GEOID03
AJ6780 DYNAMIC HT -   7.904 (meters)   25.93 (feet) COMP
AJ6780
AJ6780 ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AJ6780 Type   PID   Designation   North   East Ellip
AJ6780 --
AJ6780 NETWORK AJ6780 L 535   1.12   1.20   2.35
AJ6780 --
AJ6780 MODELED GRAV-   979,065.3   (mgal)   NAVD 88
AJ6780
AJ6780 VERT ORDER - FIRST   CLASS II
AJ6780
AJ6780.The horizontal coordinates were established by GPS observations
AJ6780.and adjusted by the National Geodetic Survey in February 2007.
AJ6780
AJ6780.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AJ6780.See National Readjustment for more information.
AJ6780.The horizontal coordinates are valid at the epoch date displayed above.
AJ6780.The epoch date for horizontal control is a decimal equivalence
AJ6780.of Year/Month/Day.
AJ6780
AJ6780.The orthometric height was determined by differential leveling
AJ6780.and adjusted in January 2002.
AJ6780.No vertical observational check was made to the station.
AJ6780
AJ6780.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ6780
AJ6780.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ6780
AJ6780.The ellipsoidal height was determined by GPS observations
AJ6780.and is referenced to NAD 83.
AJ6780
AJ6780.The geoid height was determined by GEOID03.
AJ6780
AJ6780.The dynamic height is computed by dividing the NAVD 88
AJ6780.geopotential number by the normal gravity value computed on the
AJ6780.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6780.degrees latitude (g = 980.6199 gals.).
AJ6780
AJ6780.The modeled gravity was interpolated from observed gravity values.
AJ6780

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AJ6780;                    North         East     Units Scale Factor Converg.
AJ6780;SPC FL E     -   235,623.022   197,139.732   MT  0.99994128   -0 00 46.0
AJ6780;SPC FL E     -   773,039.86    646,782.60   sFT  0.99994128   -0 00 46.0
AJ6780;UTM  17      - 2,926,674.610   497,140.708   MT  0.99960010   -0 00 46.0
AJ6780
AJ6780!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ6780!SPC FL E     -   1.00000263  x   0.99994128  =   0.99994391
AJ6780!UTM  17      -   1.00000263  x   0.99960010  =   0.99960273
AJ6780
AJ6780                          SUPERSEDED SURVEY CONTROL
AJ6780
AJ6780  NAD 83(1999)-  26 27 37.51927(N)    081 01 43.26044(W) AD(       ) 1
AJ6780  ELLIP H (12/12/02)  -16.758  (m)                       GP(       ) 2 2
AJ6780  NAVD 88 (12/12/02)    7.92   (m)           26.0    (f) LEVELING    3
AJ6780
AJ6780.Superseded values are not recommended for survey control.
AJ6780.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6780.See file dsdata.txt to determine how the superseded data were derived.
AJ6780
AJ6780_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK9714126675(NAD 83)
AJ6780_MARKER: DD = SURVEY DISK
AJ6780_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6780_STAMPING: L 535 2001 CERP
AJ6780_MARK LOGO: USE
AJ6780_PROJECTION: RECESSED 13 CENTIMETERS
AJ6780_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6780_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6780+STABILITY: SURFACE MOTION
AJ6780_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6780+SATELLITE: SATELLITE OBSERVATIONS - 2002
AJ6780
AJ6780  HISTORY     - Date     Condition        Report By
AJ6780  HISTORY     - 20010718 MONUMENTED       MOREKL
AJ6780  HISTORY     - 2002     GOOD             MAPTEC
AJ6780
AJ6780                          STATION DESCRIPTION
AJ6780
AJ6780'DESCRIBED BY MORGAN AND EKLUND INC 2001 (PDW)
AJ6780'THE STATION IS LOCATED ABOUT 34.0 KM (21.1 MILES) SOUTH SOUTHWEST OF
AJ6780'CLEWISTON, ABOUT
AJ6780'39.7 KM (24.7 MILES) EAST OF IMMOKALEE, ABOUT 68.1 KM (42.3 MILES)
AJ6780'NORTHWEST OF ANDYTOWN, IN
AJ6780'SECTION 28, TOWNSHIP 46 SOUTH, RANGE 33 EAST.
AJ6780'
AJ6780'OWNERSHIP   HENDRY COUNTY (ROAD RIGHT OF WAY)
AJ6780'
AJ6780'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 80 AND COUNTY
AJ6780'ROAD 833, ABOUT
AJ6780'19.4 KM (12.0 MILES) WEST OF CLEWISTON, GO SOUTH ON COUNTY ROAD 833
AJ6780'FOR 32.5 KM (20.2 MILES)
AJ6780'TO THE JUNCTION OF COUNTY ROAD 846, GO EAST ON COUNTY ROAD 846/833 FOR
AJ6780'9.6 KM (6.0 MILES)
AJ6780'TO A 90 DEGREE BEND TO THE SOUTH AND THE MARK ON THE LEFT.
AJ6780'
AJ6780'THE MARK IS ON THE OUTSIDE OF A CURVE IN THE ROADWAY TO THE SOUTH,
AJ6780'24.0 METERS (78.9 FEET)
AJ6780'NORTH OF A 4 FOOT BARBED WIRE FENCE (MEASURED RADIAL TOWARD THE CURVE
AJ6780'CENTER), 16.0
AJ6780'METERS (52.5 FEET) SOUTH OF A CARSONITE WITNESS POST AND GUY WIRE,
AJ6780'12.4 METERS (40.7 FEET)
AJ6780'SOUTH OF A WOOD UTILITY POLE (PI IN OVERHEAD WIRE), 8.0 METERS (26.3
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AJ6780'FEET) NORTH OF THE
AJ6780'CENTERLINE PAVEMENT OF COUNTY ROAD 846/833.
AJ6780'
AJ6780'NOTE   A MAGNET WAS PLACED 0.2 METER (0.5 FEET) SOUTH OF AND 0.1 METER
AJ6780'(0.3 FEET) BELOW THE
AJ6780'MARK.
AJ6780'
AJ6780'
AJ6780'
AJ6780'
AJ6780'
AJ6780
AJ6780   STATION RECOVERY (2002)
AJ6780
AJ6780'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ6780'THE STATION IS LOCATED ABOUT 34.0 KM (21.1 MILES) SOUTH SOUTHWEST OF
AJ6780'CLEWISTON, ABOUT
AJ6780'39.7 KM (24.7 MILES) EAST OF IMMOKALEE, ABOUT 68.1 KM (42.3 MILES)
AJ6780'NORTHWEST OF ANDYTOWN, IN
AJ6780'SECTION 28, TOWNSHIP 46 SOUTH, RANGE 33 EAST.
AJ6780'
AJ6780'OWNERSHIP   HENDRY COUNTY (ROAD RIGHT OF WAY)
AJ6780'
AJ6780'TO REACH THE STATION FROM THE INTERSECTION OF STATE ROAD 80 AND COUNTY
AJ6780'ROAD 833, ABOUT
AJ6780'19.4 KM (12.0 MILES) WEST OF CLEWISTON, GO SOUTH ON COUNTY ROAD 833
AJ6780'FOR 32.5 KM (20.2 MILES)
AJ6780'TO THE JUNCTION OF COUNTY ROAD 846, GO EAST ON COUNTY ROAD 846/833 FOR
AJ6780'9.6 KM (6.0 MILES)
AJ6780'TO A 90 DEGREE BEND TO THE SOUTH AND THE MARK ON THE LEFT.
AJ6780'
AJ6780'THE MARK IS ON THE OUTSIDE OF A CURVE IN THE ROADWAY TO THE SOUTH,
AJ6780'24.0 METERS (78.9 FEET)
AJ6780'NORTH OF A 4 FOOT BARBED WIRE FENCE (MEASURED RADIAL TOWARD THE CURVE
AJ6780'CENTER), 16.0
AJ6780'METERS (52.5 FEET) SOUTH OF A CARSONITE WITNESS POST AND GUY WIRE,
AJ6780'12.4 METERS (40.7 FEET)
AJ6780'SOUTH OF A WOOD UTILITY POLE (PI IN OVERHEAD WIRE), 8.0 METERS (26.3
AJ6780'FEET) NORTH OF THE
AJ6780'CENTERLINE PAVEMENT OF COUNTY ROAD 846/833.
AJ6780'
AJ6780'NOTE   A MAGNET WAS PLACED 0.2 METER (0.5 FEET) SOUTH OF AND 0.1 METER
AJ6780'(0.3 FEET) BELOW THE
AJ6780'MARK.
AJ6780'
AJ6780'
AJ6780'
AJ6780'STATION RECOVERY (2002)
AJ6780'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AJ6780'RECOVERED AS DESCRIBED.
AJ6780'
AJ6780'
AJ6780'

*** retrieval complete.
Elapsed Time = 00:00:00

AD8267 ***
AD8267 DESIGNATION - LO 15   **(TRANSFERRED TO CP1146)**

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AD8267  PID          -  AD8267
AD8267  STATE/COUNTY-  FL/PALM BEACH
AD8267  USGS QUAD    -  LAKE HARBOR (1970)
AD8267
AD8267                        *CURRENT SURVEY CONTROL
AD8267  ______________________________________________________________________
AD8267* NAD 83(1986)-  26 40 57.     (N)    080 45 07.     (W)     SCALED
AD8267* NAVD 88      -         6.457  (meters)      21.18   (feet)  ADJUSTED
AD8267  ______________________________________________________________________
AD8267  GEOID HEIGHT-         -24.98  (meters)                      GEOID03
AD8267  DYNAMIC HT  -           6.447 (meters)      21.15  (feet)  COMP
AD8267  MODELED GRAV-     979,105.0   (mgal)                        NAVD 88
AD8267
AD8267  VERT ORDER   -  SECOND    CLASS I
AD8267
AD8267.The horizontal coordinates were scaled from a topographic map and have
AD8267.an estimated accuracy of +/- 6 seconds.
AD8267
AD8267.The orthometric height was determined by differential leveling
AD8267.and adjusted by the NATIONAL GEODETIC SURVEY in May 2003.
AD8267.WARNING-Repeat measurements at this control monument indicate possible
AD8267.vertical movement.
AD8267
AD8267.The geoid height was determined by GEOID03.
AD8267
AD8267.The dynamic height is computed by dividing the NAVD 88
AD8267.geopotential number by the normal gravity value computed on the
AD8267.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8267.degrees latitude (g = 980.6199 gals.).
AD8267
AD8267.The modeled gravity was interpolated from observed gravity values.
AD8267
AD8267;                    North         East     Units  Estimated Accuracy
AD8267;SPC FL E      -   260,250.      224,690.      MT  (+/- 180 meters Scaled)
AD8267
AD8267                          SUPERSEDED SURVEY CONTROL
AD8267
AD8267  NAVD 88 (09/04/92)    6.460  (m)           21.19   (f) UNKNOWN     1 2
AD8267  NGVD 29 (09/01/92)    6.889  (m)           22.60   (f) ADJUSTED    1 2
AD8267
AD8267.Superseded values are not recommended for survey control.
AD8267.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8267.See file dsdata.txt to determine how the superseded data were derived.
AD8267
AD8267_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK246512(NAD 83)
AD8267_MARKER: DD = SURVEY DISK
AD8267_SETTING: 32 = SET IN A RETAINING WALL OR CONCRETE LEDGE
AD8267_SP_SET: HEADWALL
AD8267_STAMPING: LO 15 1982 BM
AD8267_MARK LOGO: SFLWMD
AD8267_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8267_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD8267+STABILITY: SURFACE MOTION
AD8267_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8267+SATELLITE: SATELLITE OBSERVATIONS - February 28, 2000
AD8267
AD8267  HISTORY     - Date     Condition        Report By
AD8267  HISTORY     - 1982     MONUMENTED       SFLWMD
AD8267  HISTORY     - 19920401 GOOD             NGS
AD8267  HISTORY     - 20000228 GOOD             FLDEP
AD8267
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 AD8267                          STATION DESCRIPTION
 AD8267
 AD8267'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
 AD8267'8.9 KM (5.55 MI) WESTERLY ALONG STATE HIGHWAY 80 FROM THE JUNCTION OF
 AD8267'STATE HIGHWAY 880 IN BELLE GLADE, THENCE 0.4 M (1.3 FT) NORTHERLY
 AD8267'ALONG A PAVED ROAD TO THE TOP OF THE LAKE OKEECHOBEE LEVEE, THENCE
 AD8267'2.1 KM (1.30 MI) WESTERLY ALONG A LEVEE ROAD, IN THE TOP OF AND 0.1 M
 AD8267'(0.3 FT) EAST OF THE WEST END OF THE NORTH CONCRETE HEADWALL OF
 AD8267'INTAKE NUMBER 4A, 36.6 M (120.1 FT) NORTHEAST OF THE CENTER OF THE
 AD8267'ROAD, 4.5 M (14.8 FT) BELOW THE LEVEL OF THE ROAD, AND 0.3 M (1.0 FT)
 AD8267'SOUTHWEST OF THE SOUTHWEST CORNER OF A CHAIN-LINK FENCE.
 AD8267
 AD8267                          STATION RECOVERY (2000)
 AD8267
 AD8267'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
 AD8267'THE MARK IS ABOUT 28.0 MI (45.1 KM) NORTHWEST OF ANDYTOWN, 2.75 MI
 AD8267'(4.43 KM) NORTH OF SOUTH BAY, IN SECTION 4, TOWNSHIP 44 SOUTH, RANGE
 AD8267'36 EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND
 AD8267'STATE ROAD 80 IN SOUTH BAY, GO NORTH ON U.S. HIGHWAY 27 FOR 2.75 MI
 AD8267'(4.43 KM) TO THE MARK ON THE RIGHT ON THE NORTH SIDE OF THE LEVEE, SET
 AD8267'FLUSH IN THE TOP OF THE WEST END OF THE WEST CONCRETE HEADWALL OF THE
 AD8267'INTAKE FOR WATER STRUCTURE 4-A AND 40.0 FT (12.2 M) BELOW THE LEVEL OF
 AD8267'THE LEVEE ROAD. LOCATED 424.0 FT (129.2 M) NORTH-NORTHEAST OF THE
 AD8267'CENTERLINE OF U.S. HIGHWAY 27 NORTHBOUND LANES, 130.0 FT (39.6 M)
 AD8267'NORTHEAST OF A GUARDRAIL, 120.0 FT (36.6 M) NORTHEAST OF THE
 AD8267'APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 14.8 FT (4.5 M) WEST OF THE
 AD8267'EAST END OF THE HEADWALL ON THE NORTH SIDE OF THE LEVEE AND 1.0 FT
 AD8267'(0.3 M) SOUTHWEST OF THE SOUTHWEST CORNER OF A CHAIN-LINK FENCE AND
 AD8267'0.3 FT (9.1 CM) EAST OF THE WEST END OF THE HEADWALL.
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007
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The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AJ7600 ***********************************************************************
 AJ7600  DESIGNATION -  M 530                  (TRANSFERRED  TO CP1078)
 AJ7600  PID         -  AJ7600
 AJ7600  STATE/COUNTY-  FL/HENDRY
 AJ7600  USGS QUAD   -  GRASSY MARSH (1970)
 AJ7600
 AJ7600                        *CURRENT SURVEY CONTROL
 AJ7600  ______________________________________________________________________
 AJ7600* NAD 83(2007)-  26 38 09.23188(N)    081 07 40.27032(W)     ADJUSTED
 AJ7600* NAVD 88     -         7.121  (meters)      23.36   (feet)  ADJUSTED
 AJ7600  ______________________________________________________________________
 AJ7600  EPOCH DATE  -        2002.00
 AJ7600  X           -     879,893.754 (meters)                     COMP
 AJ7600  Y           -  -5,636,810.235 (meters)                     COMP
 AJ7600  Z           -   2,842,204.155 (meters)                     COMP
 AJ7600  LAPLACE CORR-          -1.10  (seconds)                    DEFLEC99
 AJ7600  ELLIP HEIGHT-         -17.391 (meters)          (02/10/07) ADJUSTED
 AJ7600  GEOID HEIGHT-         -24.53  (meters)                     GEOID03
 AJ7600  DYNAMIC HT  -           7.110 (meters)      23.33  (feet)  COMP
 AJ7600
 AJ7600  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
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AJ7600  Type    PID    Designation                        North   East  Ellip
AJ7600  ------------------------------------------------------------------
AJ7600  NETWORK AJ7600 M 530                               2.35   2.78   4.92
AJ7600  ------------------------------------------------------------------
AJ7600  MODELED GRAV-     979,094.5   (mgal)                        NAVD 88
AJ7600
AJ7600  VERT ORDER  -  FIRST     CLASS II
AJ7600
AJ7600.The horizontal coordinates were established by GPS observations
AJ7600.and adjusted by the National Geodetic Survey in February 2007.
AJ7600
AJ7600.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AJ7600.See National Readjustment for more information.
AJ7600.The horizontal coordinates are valid at the epoch date displayed above.
AJ7600.The epoch date for horizontal control is a decimal equivalence
AJ7600.of Year/Month/Day.
AJ7600
AJ7600.The orthometric height was determined by differential leveling
AJ7600.and adjusted in February 2002.
AJ7600
AJ7600.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ7600
AJ7600.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ7600
AJ7600.The ellipsoidal height was determined by GPS observations
AJ7600.and is referenced to NAD 83.
AJ7600
AJ7600.The geoid height was determined by GEOID03.
AJ7600
AJ7600.The dynamic height is computed by dividing the NAVD 88
AJ7600.geopotential number by the normal gravity value computed on the
AJ7600.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ7600.degrees latitude (g = 980.6199 gals.).
AJ7600
AJ7600.The modeled gravity was interpolated from observed gravity values.
AJ7600
AJ7600;                    North         East     Units Scale Factor Converg.
AJ7600;SPC FL E     -   255,070.020   187,270.106   MT  0.99994318   -0 03 26.3
AJ7600;SPC FL E     -   836,842.22    614,402.01   sFT  0.99994318   -0 03 26.3
AJ7600;UTM  17      - 2,946,114.973   487,274.449   MT  0.99960200   -0 03 26.3
AJ7600
AJ7600!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ7600!SPC FL E     -   1.00000273  x   0.99994318  =   0.99994591
AJ7600!UTM  17      -   1.00000273  x   0.99960200  =   0.99960473
AJ7600
AJ7600                          SUPERSEDED SURVEY CONTROL
AJ7600
AJ7600  NAD 83(1999)-  26 38 09.23197(N)    081 07 40.27040(W) AD(       ) 1
AJ7600  ELLIP H (12/12/02)  -17.392  (m)                       GP(       ) 3 1
AJ7600  NAVD 88 (12/12/02)    7.12   (m)           23.4    (f) LEVELING    3
AJ7600
AJ7600.Superseded values are not recommended for survey control.
AJ7600.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ7600.See file dsdata.txt to determine how the superseded data were derived.
AJ7600
AJ7600_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK8727446115(NAD 83)
AJ7600_MARKER: DD = SURVEY DISK
AJ7600_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ7600_STAMPING: M 530 2001 CERP
AJ7600_MARK LOGO: USE
AJ7600_PROJECTION: RECESSED 10 CENTIMETERS
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AJ7600_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ7600_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ7600+STABILITY: SURFACE MOTION
AJ7600_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ7600+SATELLITE: SATELLITE OBSERVATIONS - April 26, 2002
AJ7600
AJ7600 HISTORY   - Date   Condition   Report By
AJ7600 HISTORY   - 20010528 MONUMENTED   EMCINC
AJ7600 HISTORY   - 20020426 GOOD   MAPTEC
AJ7600
AJ7600   STATION DESCRIPTION
AJ7600
AJ7600'DESCRIBED BY EMC INCORPORATED 2001 (MKC)
AJ7600'THE MARK IS LOCATED ABOUT 22.6 KILOMETERS (14.0 MILES) SOUTH
AJ7600'SOUTHWEST OF MOORE HAVEN, FLORIDA ABOUT 22.6 KILOMETERS (14.0
AJ7600'MILES) WEST SOUTHWEST OF CLEWISTON, FLORIDA, ON THE RIGHT OF WAY
AJ7600'OF COUNTY ROAD 833. LOCATED ON THE GRASSY MARSH QUAD, SECTION 27,
AJ7600'TOWNSHIP 44 SOUTH, RANGE 32 EAST.
AJ7600'
AJ7600'OWNERSHIP FLDT
AJ7600'
AJ7600'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 80 AND
AJ7600'COUNTY ROAD 833 ABOUT 17.7 KILOMETERS (11.0 MILES) WEST OF
AJ7600'CLEWISTON, FLORIDA, GO SOUTH 12.98 KILOMETERS (8.05 MILES) ON COUNTY
AJ7600'ROAD 833 TO THE MARK ON THE LEFT (EAST) SIDE OF THE ROAD.
AJ7600'
AJ7600'THE MARK IS 22.5 METERS (73.8 FEET) SOUTH OF THE CENTER OF DELSUR
AJ7600'AVENUE LEADING EAST, 20.2 METERS (66.3 FEET) NORTH NORTHEAST OF
AJ7600'THE NORTH END OF A CONCRETE HEADWALL OF A CULVERT UNDER COUNTY
AJ7600'ROAD 833, 14.8 METERS (48.6 FEET) EAST OF THE CENTER OF COUNTY ROAD
AJ7600'833, 0.45 METERS (1.5 FEET) WEST OF A CARSONITE WITNESS POST AND 0.25
AJ7600'METERS (0.8 FEET) SOUTH OF A MAGNET BURIED 0.1 METERS (0.3 FEET)
AJ7600'BELOW GROUND.
AJ7600'
AJ7600'
AJ7600'
AJ7600'
AJ7600'
AJ7600
AJ7600   STATION RECOVERY (2002)
AJ7600
AJ7600'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CP)
AJ7600'THE MARK IS LOCATED ABOUT 22.6 KILOMETERS (14.0 MILES) SOUTH
AJ7600'SOUTHWEST OF MOORE HAVEN, FLORIDA ABOUT 22.6 KILOMETERS (14.0
AJ7600'MILES) WEST SOUTHWEST OF CLEWISTON, FLORIDA, ON THE RIGHT OF WAY
AJ7600'OF COUNTY ROAD 833. LOCATED ON THE GRASSY MARSH QUAD, SECTION 27,
AJ7600'TOWNSHIP 44 SOUTH, RANGE 32 EAST.
AJ7600'
AJ7600'OWNERSHIP FLDT
AJ7600'
AJ7600'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 80 AND
AJ7600'COUNTY ROAD 833 ABOUT 17.7 KILOMETERS (11.0 MILES) WEST OF
AJ7600'CLEWISTON, FLORIDA, GO SOUTH 12.98 KILOMETERS (8.05 MILES) ON COUNTY
AJ7600'ROAD 833 TO THE MARK ON THE LEFT (EAST) SIDE OF THE ROAD.
AJ7600'
AJ7600'THE MARK IS 22.5 METERS (73.8 FEET) SOUTH OF THE CENTER OF DELSUR
AJ7600'AVENUE LEADING EAST, 20.2 METERS (66.3 FEET) NORTH NORTHEAST OF
AJ7600'THE NORTH END OF A CONCRETE HEADWALL OF A CULVERT UNDER COUNTY
AJ7600'ROAD 833, 14.8 METERS (48.6 FEET) EAST OF THE CENTER OF COUNTY ROAD
AJ7600'833, 0.45 METERS (1.5 FEET) WEST OF A CARSONITE WITNESS POST AND 0.25
AJ7600'METERS (0.8 FEET) SOUTH OF A MAGNET BURIED 0.1 METERS (0.3 FEET)

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 AJ7600'BELOW GROUND.
 AJ7600'
 AJ7600'STATION RECOVERY (2002)
 AJ7600'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
 AJ7600'RECOVERED AS DESCRIBED.
 AJ7600'
 AJ7600'
 AJ7600'
 AJ7600'
 AJ7600'

 *** retrieval complete.
 Elapsed Time = 00:00:00


AD8168 ***********************************************************************
 AD8168  DESIGNATION -  MI 1              (TRANSFERRED TO CP1211)
 AD8168  PID         -  AD8168
 AD8168  STATE/COUNTY-  FL/PALM BEACH
 AD8168  USGS QUAD   -  LAKE HARBOR (1970)
 AD8168
 AD8168                         *CURRENT SURVEY CONTROL
 AD8168  ______________________________________________________________________
 AD8168* NAD 83(1986)-  26 38 18.     (N)    080 49 42.     (W)     SCALED
 AD8168* NAVD 88     -         5.539  (meters)      18.17   (feet)  ADJUSTED
 AD8168  ______________________________________________________________________
 AD8168  GEOID HEIGHT-         -24.86  (meters)                      GEOID03
 AD8168  DYNAMIC HT  -           5.530 (meters)      18.14  (feet)  COMP
 AD8168  MODELED GRAV-     979,097.7   (mgal)                        NAVD 88
 AD8168
 AD8168  VERT ORDER  -  FIRST     CLASS II
 AD8168
 AD8168.The horizontal coordinates were scaled from a topographic map and have
 AD8168.an estimated accuracy of +/- 6 seconds.
 AD8168
 AD8168.The orthometric height was determined by differential leveling
 AD8168.and adjusted by the NATIONAL GEODETIC SURVEY in October 1999.
 AD8168
 AD8168.The geoid height was determined by GEOID03.
 AD8168
 AD8168.The dynamic height is computed by dividing the NAVD 88
 AD8168.geopotential number by the normal gravity value computed on the
 AD8168.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD8168.degrees latitude (g = 980.6199 gals.).
 AD8168
 AD8168.The modeled gravity was interpolated from observed gravity values.
 AD8168
 AD8168;                    North         East     Units  Estimated Accuracy
 AD8168;SPC FL E     -   255,350.      217,090.      MT  (+/- 180 meters Scaled)
 AD8168
 AD8168                           SUPERSEDED SURVEY CONTROL
 AD8168
 AD8168  NAVD 88 (09/04/92)    5.547  (m)           18.20   (f) UNKNOWN     1 2
 AD8168  NGVD 29 (09/01/92)    5.975  (m)           19.60   (f) ADJUSTED    1 2
 AD8168
 AD8168.Superseded values are not recommended for survey control.
 AD8168.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AD8168.See file dsdata.txt to determine how the superseded data were derived.
 AD8168
 AD8168_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK170463(NAD 83)
 AD8168_MARKER: DD = SURVEY DISK
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 AD8168_SETTING: 32 = SET IN A RETAINING WALL OR CONCRETE LEDGE
 AD8168_SP_SET: RETAINING WALL
 AD8168_STAMPING: MI-1 BM
 AD8168_MARK LOGO: NONE
 AD8168_MAGNETIC: N = NO MAGNETIC MATERIAL
 AD8168_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AD8168+STABILITY: SURFACE MOTION
 AD8168_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AD8168+SATELLITE: SATELLITE OBSERVATIONS - October 02, 1996
 AD8168
 AD8168  HISTORY     - Date     Condition        Report By
 AD8168  HISTORY     - UNK      MONUMENTED       SFLWMD
 AD8168  HISTORY     - 19920317 GOOD             NGS
 AD8168  HISTORY     - 19961002 GOOD             FLDEP
 AD8168  HISTORY     - 20021111 GOOD             NGS
 AD8168
 AD8168                          STATION DESCRIPTION
 AD8168
 AD8168'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
 AD8168'6.6 KM (4.10 MI) SOUTHERLY ALONG MIAMI CANAL ROAD AND THE WEST LEVEE
 AD8168'ROAD OF THE MIAMI CANAL FROM THE POST OFFICE IN LAKE HARBOR, IN TOP
 AD8168'OF AND NEAR THE SOUTH CORNER OF THE SOUTHEAST CONCRETE WINGWALL OF A
 AD8168'FLORIDA EAST COAST RAILROAD BRIDGE SPANNING THE MIAMI CANAL, 41.8 M
 AD8168'(137.1 FT) EAST OF AND LEVEL WITH THE CENTER OF THE ROAD, 6.5 M (21.3
 AD8168'FT) SOUTH OF THE NEAR RAIL, AND 0.1 M (0.3 FT) NORTHWEST OF THE
 AD8168'SOUTHEAST EDGE OF THE WINGWALL.
 AD8168
 AD8168                          STATION RECOVERY (1996)
 AD8168
 AD8168'RECOVERY NOTE BY FL DEPT OF ENV PRO 1996 (VAJ)
 AD8168'THE MARK IS ABOUT 10.4 MI (16.7 KM) SOUTHWEST OF BELLE GLADE, 10.4 MI
 AD8168'(16.7 KM) SOUTHEAST OF CLEWISTON IN SECTION 27, TOWNSHIP 44 SOUTH,
 AD8168'RANGE 35 EAST. TO REACH THE MARK FROM THE POST OFFICE IN LAKE HARBOR,
 AD8168'GO SOUTH ON THE MIAMI CANAL ROAD (WEST SIDE OF CANAL) FOR 0.65 MI
 AD8168'(1.05 KM) TO THE END OF THE PAVEMENT, CONTINUE SOUTH ON THE MIAMI
 AD8168'CANAL ROAD FOR 3.4 MI (5.5 KM) TO A RAILROAD TRACK CROSSING (BRIDGE
 AD8168'USED FOR CARS AND TRAINS) AND THE MARK ON THE LEFT, SET FLUSH IN THE
 AD8168'SOUTHEAST CONCRETE RETAINING WALL OF THE BRIDGE AND ABOUT 0.5 FT (15.2
 AD8168'CM) BELOW THE LEVEL OF THE BRIDGE. LOCATED 137.1 FT (41.8 M) EAST OF
 AD8168'THE APPROXIMATE CENTERLINE OF THE MIAMI CANAL ROAD (WEST SIDE OF
 AD8168'CANAL) , 39.4 FT (12.0 M) WEST OF THE APPROXIMATE CENTERLINE OF THE
 AD8168'MIAMI CANAL ROAD (EAST SIDE OF CANAL) , 21.3 FT (6.5 M) SOUTH OF THE
 AD8168'SOUTH RAIL OF THE TRACKS AND 0.3 FT (9.1 CM) NORTHWEST OF THE
 AD8168'SOUTHEAST EDGE OF THE RETAINING WALL.
 AD8168
 AD8168                          STATION RECOVERY (2002)
 AD8168
 AD8168'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002
 AD8168'RECOVERED IN GOOD CONDITION.
1        National Geodetic Survey,   Retrieval Date = JULY 25, 2007



The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.59
1        National Geodetic Survey,   Retrieval Date = APRIL  8, 2008
 AJ6203 ***********************************************************************
 AJ6203  DESIGNATION -  P 524                (TRANSFERRED TO CP1155)
 AJ6203  PID         -  AJ6203
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AJ6203  STATE/COUNTY-  FL/GLADES
AJ6203  USGS QUAD   -  CLEWISTON NORTH (1984)
AJ6203
AJ6203                        *CURRENT SURVEY CONTROL
AJ6203  ______________________________________________________________________
AJ6203* NAD 83(2007)-  26 47 40.66811(N)    080 58 04.74527(W)     ADJUSTED
AJ6203* NAVD 88     -        10.236  (meters)      33.58   (feet)  ADJUSTED
AJ6203  ______________________________________________________________________
AJ6203  EPOCH DATE  -        2002.00
AJ6203  X           -     894,377.455 (meters)                     COMP
AJ6203  Y           -  -5,626,527.212 (meters)                     COMP
AJ6203  Z           -   2,857,915.344 (meters)                     COMP
AJ6203  LAPLACE CORR-          -1.91  (seconds)                    DEFLEC99
AJ6203  ELLIP HEIGHT-         -14.565 (meters)          (02/10/07) ADJUSTED
AJ6203  GEOID HEIGHT-         -24.78  (meters)                     GEOID03
AJ6203  DYNAMIC HT  -          10.220 (meters)      33.53  (feet)  COMP
AJ6203
AJ6203  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AJ6203  Type    PID    Designation                       North   East  Ellip
AJ6203  ------------------------------------------------------------------
AJ6203  NETWORK AJ6203 P 524                               1.04   1.00   1.98
AJ6203  ------------------------------------------------------------------
AJ6203  MODELED GRAV-     979,114.3   (mgal)                      NAVD 88
AJ6203
AJ6203  VERT ORDER  -  FIRST     CLASS II
AJ6203
AJ6203.The horizontal coordinates were established by GPS observations
AJ6203.and adjusted by the National Geodetic Survey in February 2007.
AJ6203
AJ6203.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AJ6203.See National Readjustment for more information.
AJ6203.The horizontal coordinates are valid at the epoch date displayed above.
AJ6203.The epoch date for horizontal control is a decimal equivalence
AJ6203.of Year/Month/Day.
AJ6203
AJ6203.The orthometric height was determined by differential leveling
AJ6203.and adjusted in January 2002.
AJ6203
AJ6203.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ6203
AJ6203.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ6203
AJ6203.The ellipsoidal height was determined by GPS observations
AJ6203.and is referenced to NAD 83.
AJ6203
AJ6203.The geoid height was determined by GEOID03.
AJ6203
AJ6203.The dynamic height is computed by dividing the NAVD 88
AJ6203.geopotential number by the normal gravity value computed on the
AJ6203.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6203.degrees latitude (g = 980.6199 gals.).
AJ6203
AJ6203.The modeled gravity was interpolated from observed gravity values.
AJ6203
AJ6203;                   North         East     Units Scale Factor Converg.
AJ6203;SPC FL E     -   272,650.407   203,183.230   MT  0.99994130   +0 00 52.0
AJ6203;SPC FL E     -   894,520.54    666,610.31   sFT  0.99994130   +0 00 52.0
AJ6203;UTM  17      - 2,963,689.361   503,182.144   MT  0.99960013   +0 00 52.0
AJ6203
AJ6203!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ6203!SPC FL E     -   1.00000229  x   0.99994130  =   0.99994359
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AJ6203!UTM 17   -   1.00000229 x   0.99960013 =   0.99960242
AJ6203
AJ6203   SUPERSEDED SURVEY CONTROL
AJ6203
AJ6203 NAD 83(1999)- 26 47 40.66813(N)   080 58 04.74557(W) AD(   ) 1
AJ6203 ELLIP H (12/12/02) -14.549 (m)   GP(   ) 4 1
AJ6203 NAVD 88 (12/12/02)   10.24   (m)   33.6   (f) LEVELING   3
AJ6203
AJ6203.Superseded values are not recommended for survey control.
AJ6203.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6203.See file dsdata.txt to determine how the superseded data were derived.
AJ6203
AJ6203_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK0318263689(NAD 83)
AJ6203_MARKER: F = FLANGE-ENCASED ROD
AJ6203_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ6203_STAMPING: P 524 2001 CERP
AJ6203_MARK LOGO: USE
AJ6203_PROJECTION: RECESSED 10 CENTIMETERS
AJ6203_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6203_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ6203_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6203+SATELLITE: SATELLITE OBSERVATIONS - April 09, 2002
AJ6203_ROD/PIPE-DEPTH: 7.31 meters
AJ6203
AJ6203 HISTORY   - Date   Condition   Report By
AJ6203 HISTORY   - 20010516 MONUMENTED   EMCINC
AJ6203 HISTORY   - 20020409 GOOD   MAPTEC
AJ6203 HISTORY   - 20031201 GOOD   INDIV
AJ6203
AJ6203   STATION DESCRIPTION
AJ6203
AJ6203'DESCRIBED BY EMC INCORPORATED 2001 (CHP)
AJ6203'THE STATION IS LOCATED APPROXIMATELY 13.7 KILOMETERS (8.5 MILES)
AJ6203'SOUTHEAST OF MOORE HAVEN, FLORIDA AND APPROXIMATELY 5.6
AJ6203'KILOMETERS (3.5 MILES) NORTHWEST OF CLEWISTON, FLORIDA ON THE
AJ6203'HERBERT HOOVER LEVEE APPROXIMATELY 0.80 KILOMETERS (0.5 MILES)
AJ6203'NORTHWEST OF PUMP STATION S4. LOCATED ON THE CLEWISTON NORTH QUAD
AJ6203'SECTION 19, TOWNSHIP 42 SOUTH, RANGE 33 EAST.
AJ6203'
AJ6203'OWNERSHIP   SOUTH FLORIDA WATER MANAGEMENT DISTRICT
AJ6203'
AJ6203'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 27 AND
AJ6203'COUNTY ROAD 720 APPROXIMATELY 3.2 KILOMETERS (2.0 MILES) WEST OF
AJ6203'CLEWISTON, FLORIDA GO NORTH ON COUNTY ROAD 720 FOR 5.96 KILOMETERS
AJ6203'(3.7 MILES) TO GRIFFIN ROAD SOUTHEAST ON RIGHT, THENCE NORTH ON
AJ6203'GRIFFIN ROAD SOUTHEAST 1.20 KILOMETERS (0.75 MILES) TO THE TOP OF
AJ6203'HERBERT HOOVER LEVEE, THENCE SOUTHEAST (RIGHT) ON THE LEVEE 0.16
AJ6203'KILOMETERS (0.1 MILES) TO A GATE, THENCE CONTINUE SOUTHEAST ON THE
AJ6203'LEVEE 2.42 KILOMETERS (1.5 MILES) TO THE MARK ON LEFT, ON THE
AJ6203'LAKESIDE TOP OF THE LEVEE.
AJ6203'
AJ6203'THE STATION IS 54.1 METERS (177.4 FEET) EAST OF THE NORTHEAST CORNER
AJ6203'OF A
AJ6203'CONCRETE BRIDGE, 18.9 METERS (62.0 FEET) SOUTHWEST OF THE EDGE OF RIP
AJ6203'RAP ON RIM
AJ6203'CANAL, 2.3 METERS (7.6 FEET) NORTHEAST OF THE CENTER OF THE LEVEE,
AJ6203'1.0 METER (3.3 FEET) WEST OF A CARSONITE WITNESS POST.
AJ6203'THE MARK IS A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT 7.31 METERS
AJ6203'LOCATED INSIDE A 5-INCH LOGO COVER RECESSED 0.1 METERS (0.3 FEET)
AJ6203'BELOW GROUND. A MAGNET WAS PLACED INSIDE THE LOGO COVER.
AJ6203'

AJ6203'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
AJ6203'
AJ6203'
AJ6203
AJ6203 STATION RECOVERY (2002)
AJ6203
AJ6203'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CHP)
AJ6203'THE STATION IS LOCATED APPROXIMATELY 13.7 KILOMETERS (8.5 MILES)
AJ6203'SOUTHEAST OF MOORE HAVEN, FLORIDA AND APPROXIMATELY 5.6
AJ6203'KILOMETERS (3.5 MILES) NORTHWEST OF CLEWISTON, FLORIDA ON THE
AJ6203'HERBERT HOOVER LEVEE APPROXIMATELY 0.80 KILOMETERS (0.5 MILES)
AJ6203'NORTHWEST OF PUMP STATION S4. LOCATED ON THE CLEWISTON NORTH QUAD
AJ6203'SECTION 19, TOWNSHIP 42 SOUTH, RANGE 33 EAST.
AJ6203'
AJ6203'OWNERSHIP SOUTH FLORIDA WATER MANAGEMENT DISTRICT
AJ6203'
AJ6203'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 27 AND
AJ6203'COUNTY ROAD 720 APPROXIMATELY 3.2 KILOMETERS (2.0 MILES) WEST OF
AJ6203'CLEWISTON, FLORIDA GO NORTH ON COUNTY ROAD 720 FOR 5.96 KILOMETERS
AJ6203'(3.7 MILES) TO GRIFFIN ROAD SOUTHEAST ON RIGHT, THENCE NORTH ON
AJ6203'GRIFFIN ROAD SOUTHEAST 1.20 KILOMETERS (0.75 MILES) TO THE TOP OF
AJ6203'HERBERT HOOVER LEVEE, THENCE SOUTHEAST (RIGHT) ON THE LEVEE 0.16
AJ6203'KILOMETERS (0.1 MILES) TO A GATE, THENCE CONTINUE SOUTHEAST ON THE
AJ6203'LEVEE 2.42 KILOMETERS (1.5 MILES) TO THE MARK ON LEFT, ON THE
AJ6203'LAKESIDE TOP OF THE LEVEE.
AJ6203'
AJ6203'THE STATION IS 54.1 METERS (177.4 FEET) EAST OF THE NORTHEAST CORNER
AJ6203'OF A
AJ6203'CONCRETE BRIDGE, 18.9 METERS (62.0 FEET) SOUTHWEST OF THE EDGE OF RIP
AJ6203'RAP ON RIM
AJ6203'CANAL, 2.3 METERS (7.6 FEET) NORTHEAST OF THE CENTER OF THE LEVEE,
AJ6203'1.0 METER (3.3 FEET) WEST OF A CARSONITE WITNESS POST.
AJ6203'THE MARK IS A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT 7.31 METERS
AJ6203'LOCATED INSIDE A 5-INCH LOGO COVER RECESSED 0.1 METERS (0.3 FEET)
AJ6203'BELOW GROUND. A MAGNET WAS PLACED INSIDE THE LOGO COVER.
AJ6203'
AJ6203'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
AJ6203'
AJ6203' STATION RECOVERY (2002)
AJ6203'
AJ6203'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AJ6203'RECOVERED AS DESCRIBED.
AJ6203'
AJ6203
AJ6203 STATION RECOVERY (2003)
AJ6203
AJ6203'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2003 (LB)
AJ6203'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:00

The NGS Data SheetSee file dsdata.txt for more information about the
datasheet.DATABASE = ,PROGRAM = datasheet, VERSION = 7.59
1 National Geodetic Survey, Retrieval Date = APRIL 8, 2008
AD7316 **

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AD7316  DESIGNATION -  PAHOKEE                    (TRANSFERRED TO CP1138)
AD7316  PID         -  AD7316
AD7316  STATE/COUNTY-  FL/PALM BEACH
AD7316  USGS QUAD   -  PAHOKEE (1970)
AD7316
AD7316                        *CURRENT SURVEY CONTROL
AD7316  ______________________________________________________________________
AD7316* NAD 83(1990)-  26 49 27.48546(N)    080 40 04.29894(W)     ADJUSTED
AD7316* NAVD 88     -        11.121  (meters)      36.49   (feet)  ADJUSTED
AD7316  ______________________________________________________________________
AD7316  LAPLACE CORR-          -1.84  (seconds)                    DEFLEC99
AD7316  GEOID HEIGHT-         -25.41  (meters)                     GEOID03
AD7316  DYNAMIC HT  -          11.104 (meters)      36.43  (feet)  COMP
AD7316  MODELED GRAV-     979,115.3   (mgal)                       NAVD 88
AD7316
AD7316  HORZ ORDER  -  FIRST
AD7316  VERT ORDER  -  FIRST     CLASS II
AD7316
AD7316.The horizontal coordinates were established by classical geodetic methods
AD7316.and adjusted by the National Geodetic Survey in May 1991.
AD7316
AD7316.The orthometric height was determined by differential leveling
AD7316.and adjusted in September 2001.
AD7316
AD7316.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7316
AD7316.The geoid height was determined by GEOID03.
AD7316
AD7316.The dynamic height is computed by dividing the NAVD 88
AD7316.geopotential number by the normal gravity value computed on the
AD7316.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7316.degrees latitude (g = 980.6199 gals.).
AD7316
AD7316.The modeled gravity was interpolated from observed gravity values.
AD7316
AD7316;                    North         East     Units Scale Factor Converg.
AD7316;SPC FL E     -   275,980.612   233,015.686   MT  0.99995463   +0 08 59.6
AD7316;SPC FL E     -   905,446.39    764,485.63    sFT  0.99995463   +0 08 59.6
AD7316;UTM  17      - 2,967,018.430   533,004.422   MT  0.99961345   +0 08 59.6
AD7316
AD7316!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD7316!SPC FL E     -   1.00000225  x   0.99995463  =   0.99995688
AD7316!UTM  17      -   1.00000225  x   0.99961345  =   0.99961569
AD7316
AD7316:                Primary Azimuth Mark                    Grid Az
AD7316:SPC FL E     -  CANAL POINT TANK                        039 30 31.1
AD7316:UTM  17      -  CANAL POINT TANK                        039 30 31.1
AD7316
AD7316|----------------------------------------------------------------------|
AD7316| PID    Reference Object                    Distance      Geod. Az  |
AD7316|                                                          dddmmss.s |
AD7316| AD7328 CANAL POINT TANK                  APPROX. 5.9 KM 0393930.7 |
AD7316| AD7321 PAHOKEE FLA HIGHWAY PATROL MST    APPROX. 2.1 KM 0542923.0 |
AD7316| AJ2049 PAHOKEE RM 1                      19.602 METERS 05934     |
AD7316| AD7293 BRYANT US SUGAR CORP EAST TANK    APPROX. 6.1 KM 0654243.2 |
AD7316| AD7292 BRYANT US SUGAR CORP WEST TANK    APPROX. 5.4 KM 0655606.7 |
AD7316| AD7317 PAHOKEE MUN TANK                  215.215 METERS 07825     |
AD7316| AD7314 PAHOKEE SE MUN TANK               APPROX. 1.9 KM 1282347.4 |
AD7316| AD7301 PAHOKEE LAKE EQUIPMENT RAD MST    APPROX. 6.2 KM 1992216.9 |
AD7316| AD7308 VORTAC PAHOKEE PHK                APPROX. 5.2 KM 2065856.1 |
AD7316| AJ2048 PAHOKEE RM 2                      21.630 METERS 21559     |
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AD7316| AJ2047 PAHOKEE AZ MK 2392602.9 |
AD7316|---|
AD7316
AD7316 SUPERSEDED SURVEY CONTROL
AD7316
AD7316 NAD 83(1986)- 26 49 27.48895(N) 080 40 04.30772(W) AD( ) 1
AD7316 NAD 27 - 26 49 26.26778(N) 080 40 05.10076(W) AD( ) 1
AD7316 NGVD 29 (07/19/86) 11.6 (m) 38. (f) VERT ANG
AD7316
AD7316.Superseded values are not recommended for survey control.
AD7316.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7316.See file dsdata.txt to determine how the superseded data were derived.
AD7316
AD7316_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK3300467018(NAD 83)
AD7316_MARKER: DS = TRIANGULATION STATION DISK
AD7316_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AD7316_SP_SET: TOP OF SQUARE CONCRETE MONUMENT
AD7316_STAMPING: PAHOKEE 1970
AD7316_MARK LOGO: NGS
AD7316_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7316_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD7316+STABILITY: SURFACE MOTION
AD7316_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7316+SATELLITE: SATELLITE OBSERVATIONS - November 16, 2001
AD7316
AD7316 HISTORY - Date Condition Report By
AD7316 HISTORY - 1970 MONUMENTED NGS
AD7316 HISTORY - 20000318 GOOD FLDEP
AD7316 HISTORY - 20011116 GOOD FLDEP
AD7316
AD7316 STATION DESCRIPTION
AD7316
AD7316'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970 (CLH)
AD7316'THE STATION IS LOCATED ABOUT 9 MILES SOUTH OF THE MARTIN COUNTY
AD7316'LINE, 7 MILES NORTH OF BELLE GLADE, 4 MILES SOUTHWEST OF CANAL POINT
AD7316'AND IS ON A LEVEE ON THE EDGE OF LAKE OKEECHOBEE IN THE NORTH EDGE
AD7316'OF PAHOKEE. IT IS ON PROPERTY OWNED BY THE STATE PARKS
AD7316'COMMISSION.
AD7316'
AD7316'TO REACH THE STATION FROM THE MAIN CROSS STREET IN PAHOKEE, MAIN
AD7316'STREET AND NORTH LAKE DRIVE, GO WEST ON NORTH LAKE DRIVE FOR 0.1
AD7316'MILE TO THE TOP OF LEVEE. TURN LEFT AND GO SOUTH ON LEVEE ROAD FOR
AD7316'0.15 MILE TO THE STATION ON THE RIGHT AS DESCRIBED.
AD7316'
AD7316'STATION MARK, STAMPED PAHOKEE 1970, IS A STANDARD DISK SET IN A
AD7316'ROUND CONCRETE POST WHICH IS FLUSH WITH THE GROUND SURFACE. IT
AD7316'IS 206 FEET SOUTHEAST OF THE WATER LINE OF THE LAKE, 106 FEET
AD7316'SOUTHEAST OF A FORK IN ROAD, 30 FEET NORTHWEST OF A LEVEE MARKER,
AD7316'18 FEET NORTHWEST OF CENTER OF LEVEE AND 8 FEET NORTHWEST OF THE
AD7316'WEST CURB OF LEVEE.
AD7316'
AD7316'REFERENCE MARK 1, STAMPED PAHOKEE NO 1 1970, IS A STANDARD DISK
AD7316'SET IN A DRILL HOLE IN A CONCRETE CURB WHICH PROJECTS 5-INCHES. IT
AD7316'IS 43 FEET SOUTHEAST OF A FORK IN ROAD, 10 FEET NORTHWEST OF
AD7316'CENTER OF LEVEE AND 2 FEET NORTHWEST OF THE NORTHWEST OF LEVEE
AD7316'ROAD.
AD7316'
AD7316'REFERENCE MARK 2, STAMPED PAHOKEE NO 2 1970, IS A STANDARD
AD7316'DISK SET IN A DRILL HOLE IN A CONCRETE CURB WHICH PROJECTS
AD7316'5-INCHES. IT IS 89 FEET NORTHEAST OF A WOOD GATE LEADING INTO A
AD7316'PARK AND 8.6 FEET SOUTHEAST OF THE CENTER OF THE LEVEE.

AD7316'
AD7316'AZIMUTH MARK, STAMPED PAHOKEE 1970, IS A STANDARD DISK SET IN
AD7316'THE TOP OF A ROUND CONCRETE MONUMENT WHICH PROJECTS 3-INCHES. IT
AD7316'IS 19 FEET EAST OF THE CENTER OF A PAVED ROAD, 1.4 FEET EAST OF
AD7316'A POWER LINE POLE AND 1 FOOT NORTH OF A METAL WITNESS POST.
AD7316'
AD7316'TO REACH THE AZIMUTH MARK FROM THE STATION GO SOUTH ON THE LEVEE
AD7316'FOR 0.1 MILE TO PAHOKEE STATE PARK ENTRANCE. CONTINUE SOUTH ON
AD7316'LEVEE FOR 0.05 MILE TO AN ACCESS ROAD RIGHT, BEAR RIGHT AND
AD7316'CONTINUE SOUTH ON PAVED ROAD FOR 0.4 MILE TO THE AZIMUTH MARK ON
AD7316'THE LEFT AS DESCRIBED.
AD7316'
AD7316'HEIGHT OF LIGHT ABOVE STATION MARK 22 METERS.
AD7316
AD7316   STATION RECOVERY (2000)
AD7316
AD7316'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AD7316'THE MARK IS IN PAHOKEE AND ABOUT 13.0 MI (20.9 KM) NORTH OF SOUTH BAY,
AD7316'5.5 MI (8.9 KM) SOUTHWEST OF CANAL POINT, ON THE EAST SIDE OF LAKE
AD7316'OKEECHOBEE, IN SECTION 18, TOWNSHIP 42 SOUTH, RANGE 37 EAST. TO REACH
AD7316'THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 441, 98, COUNTY ROAD 715
AD7316'AND COUNTY ROAD 700 IN CANAL POINT, GO NORTHERLY ON U.S. HIGHWAY 441
AD7316'AND 98 FOR 0.2 MI (0.3 KM) TO THE JUNCTION OF A PAVED ROAD ON THE
AD7316'LEFT, TURN LEFT ON THE PAVED ROAD AND GO WEST FOR 0.05 MI (0.08 KM)
AD7316'CROSSING OVER THE RAILROAD TRACKS TO THE TOP OF A LEVEE ROAD, TURN
AD7316'LEFT ON THE LEVEE ROAD AND GO SOUTH FOR 0.05 MI (0.08 KM) TO A LOCKED
AD7316'GATE AND WATER STRUCTURE S 352, CONTINUE SOUTH ON THE LEVEE ROAD FOR
AD7316'3.1 MI (5.0 KM) TO A LOCKED GATE ACROSS THE LEVEE ROAD, CONTINUE SOUTH
AD7316'ON THE LEVEE ROAD FOR 0.35 MI (0.56 KM) TO THE JUNCTION OF A PAVED
AD7316'LEVEE ENTRANCE (LEADING TO U.S. HIGHWAY 441), CONTINUE SOUTH ON THE
AD7316'LEVEE ROAD FOR 0.15 MI (0.24 KM) TO THE MARK ON THE RIGHT, SET IN THE
AD7316'TOP OF A ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND AND LEVEL WITH
AD7316'THE LEVEE ROAD. LOCATED 156.1 FT (47.6 M) NORTHEAST OF A WOODEN FENCE,
AD7316'71.3 FT (21.7 M) NORTH OF PAHOKEE NO 2 1970, 15.7 FT (4.8 M) NORTHWEST
AD7316'OF THE APPROXIMATE CENTERLINE OF THE PAVED LEVEE ROAD AND 7.8 FT (2.4
AD7316'M) NORTHWEST OF A METAL WITNESS POST.
AD7316
AD7316   STATION RECOVERY (2001)
AD7316
AD7316'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
AD7316'RECOVERED AS DESCRIBED.
AD7316'

*** retrieval complete.
Elapsed Time = 00:00:00

The NGS Data SheetSee file dsdata.txt for more information about the
datasheet.DATABASE = ,PROGRAM = datasheet, VERSION = 7.59
1   National Geodetic Survey,   Retrieval Date = APRIL 8, 2008
AJ8327 ***
AJ8327 DESIGNATION - PB 25   **(TRANSFERRED TO CP1051)**
AJ8327 PID   - AJ8327
AJ8327 STATE/COUNTY- FL/PALM BEACH
AJ8327 USGS QUAD   - LOXAHATCHEE SW (1970)
AJ8327
AJ8327   *CURRENT SURVEY CONTROL

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AJ8327  ____________________________________________________________________
AJ8327* NAD 83(2007)-  26 35 26.38618(N)    080 26 46.06363(W)     ADJUSTED
AJ8327* NAVD 88     -         5.911  (meters)      19.39   (feet)  ADJUSTED
AJ8327  ____________________________________________________________________
AJ8327  EPOCH DATE  -        2002.00
AJ8327  X           -     947,270.867 (meters)                    COMP
AJ8327  Y           -  -5,628,154.516 (meters)                    COMP
AJ8327  Z           -   2,837,722.387 (meters)                    COMP
AJ8327  LAPLACE CORR-          -1.78  (seconds)                   DEFLEC99
AJ8327  ELLIP HEIGHT-         -19.347 (meters)          (02/10/07) ADJUSTED
AJ8327  GEOID HEIGHT-         -25.26  (meters)                    GEOID03
AJ8327  DYNAMIC HT  -           5.902 (meters)      19.36  (feet)  COMP
AJ8327
AJ8327  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AJ8327  Type    PID    Designation                       North   East  Ellip
AJ8327  ----------------------------------------------------------------------
AJ8327  NETWORK AJ8327 PB 25                               1.20   1.16   1.90
AJ8327  ----------------------------------------------------------------------
AJ8327  MODELED GRAV-     979,102.8   (mgal)                      NAVD 88
AJ8327
AJ8327  VERT ORDER  -  FIRST     CLASS II
AJ8327
AJ8327.The horizontal coordinates were established by GPS observations
AJ8327.and adjusted by the National Geodetic Survey in February 2007.
AJ8327
AJ8327.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AJ8327.See National Readjustment for more information.
AJ8327.The horizontal coordinates are valid at the epoch date displayed above.
AJ8327.The epoch date for horizontal control is a decimal equivalence
AJ8327.of Year/Month/Day.
AJ8327
AJ8327.The orthometric height was determined by differential leveling
AJ8327.and adjusted in April 2002.
AJ8327
AJ8327.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ8327
AJ8327.The Laplace correction was computed from DEFLEC99 derived deflections.
AJ8327
AJ8327.The ellipsoidal height was determined by GPS observations
AJ8327.and is referenced to NAD 83.
AJ8327
AJ8327.The geoid height was determined by GEOID03.
AJ8327
AJ8327.The dynamic height is computed by dividing the NAVD 88
AJ8327.geopotential number by the normal gravity value computed on the
AJ8327.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ8327.degrees latitude (g = 980.6199 gals.).
AJ8327
AJ8327.The modeled gravity was interpolated from observed gravity values.
AJ8327
AJ8327;                    North         East     Units Scale Factor Converg.
AJ8327;SPC FL E     -   250,171.395   255,169.349   MT  0.99997874   +0 14 52.5
AJ8327;SPC FL E     -   820,770.65    837,168.11   sFT  0.99997874   +0 14 52.5
AJ8327;UTM  17      - 2,941,218.019   555,150.526   MT  0.99963755   +0 14 52.5
AJ8327
AJ8327!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ8327!SPC FL E     -   1.00000304  x   0.99997874  =   0.99998178
AJ8327!UTM  17      -   1.00000304  x   0.99963755  =   0.99964059
AJ8327
AJ8327                          SUPERSEDED SURVEY CONTROL
AJ8327
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AJ8327 NAD 83(1999)- 26 35 26.38622(N)   080 26 46.06403(W) AD(   ) 1
AJ8327 ELLIP H (12/12/02) -19.340 (m)   GP(   ) 4 1
AJ8327 NAVD 88 (12/12/02)   5.91   (m)   19.4   (f) LEVELING   3
AJ8327
AJ8327.Superseded values are not recommended for survey control.
AJ8327.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ8327.See file dsdata.txt to determine how the superseded data were derived.
AJ8327
AJ8327_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK5515141218(NAD 83)
AJ8327_MARKER: DD = SURVEY DISK
AJ8327_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ8327_STAMPING: PB 25 BM
AJ8327_MARK LOGO: SFLWMD
AJ8327_PROJECTION: RECESSED 10 CENTIMETERS
AJ8327_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ8327_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ8327+STABILITY: SURFACE MOTION
AJ8327_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ8327+SATELLITE: SATELLITE OBSERVATIONS - July 25, 2003
AJ8327
AJ8327 HISTORY   - Date   Condition   Report By
AJ8327 HISTORY   - 1977   MONUMENTED   SFLWMD
AJ8327 HISTORY   - 20010925 GOOD   FOST
AJ8327 HISTORY   - 20020423 GOOD   MAPTEC
AJ8327 HISTORY   - 20030725 GOOD   FLDEP
AJ8327
AJ8327   STATION DESCRIPTION
AJ8327
AJ8327'DESCRIBED BY CHARLEY FOSTER AND ASSOCIATES 2001 (JB)
AJ8327'THE MONUMENT IS LOCATED APPROXIMATELY 18.9 MILES (30.42 KM) SOUTHEAST
AJ8327'OF BELLE GLADE, FL. AND 19.7 MILES (31.70 KM) SOUTHWEST OF WEST PALM
AJ8327'BEACH, FL. IN THE LOXAHATCHEE NATIONAL WILDLIFE REFUGE, APPROXIMATE
AJ8327'SECTION 3, TOWNSHIP 45 SOUTH, RANGE 39 EAST.
AJ8327'
AJ8327'OWNERSHIP IS SOUTH FLORIDA WATER MANAGEMENT DISTRICT.
AJ8327'
AJ8327'TO REACH THE MONUMENT FROM THE INTERSECTION OF INTERSTATE I-95 AND
AJ8327'U.S. HIGHWAY 98 (SOUTHERN BLVD.) IN WEST PALM BEACH, GO WEST FROM THE
AJ8327'SAID INTERSECTION 19.7 MILES (31.70 KM) ALONG U.S. HIGHWAY 98 TO THE
AJ8327'JUNCTION OF U.S. HIGHWAY 98/441 AND COUNTY ROAD 880. THENCE PROCEED
AJ8327'SOUTHWEST 0.2 MILE (0.32 KM) ALONG COUNTY ROAD 880 TO THE ENTRANCE
AJ8327'ROAD OF TWENTY MILE BEND PARK AT THE SOUTHEAST END OF BRIDGE CROSSING
AJ8327'THE WEST PALM BEACH CANAL. THENCE PROCEED EAST 0.8 MILE (1.29 KM)
AJ8327'ALONG SAID ENTRANCE ROAD TO LOCKED GATE WITH GUARDHOUSE, THENCE
AJ8327'PROCEED AROUND A CURVE HEADING SOUTH-SOUTHWEST 0.4 MILE (0.64 KM) TO A
AJ8327'GATE PROVIDING ACCESS ONTO THE L-7 LEVEE. THENCE PROCEED 0.9 MILE
AJ8327'(1.45 KM) ALONG THE L-7 LEVEE TO FLOOD CONTROL STRUCTURE G-302,
AJ8327'CONTINUE STRAIGHT IN A SOUTHWESTERLY DIRECTION ALONG THE LEVEE 1.6
AJ8327'MILES (2.58 KM) TO STATION G-250, THEN 5.0 MILES (8.05 KM) TO STATION
AJ8327'G-251. AT STATION G-251 GO WEST ALONG LEVEE ROAD 0.3 MILE (0.48 KM)
AJ8327'TO THE NORTHEAST GATE AT STATION G-310, THENCE 0.5 MILE (0.80 KM)
AJ8327'SOUTH FROM THE SOUTHWEST GATE OF G-310 ALONG THE LEVEE ROAD TO THE
AJ8327'MARK ON THE WEST SIDE (RIGHT) OF THE ROAD. THE MONUMENT IS 8.2 MILES
AJ8327'(13.20 KM) NORTH OF STATION S-6 AND MONUMENT FCE 1560.
AJ8327'
AJ8327'THE MONUMENT IS 16.0 FEET (4.88 M) WEST OF THE CENTER OF THE LEVEE,
AJ8327'13.0 FEET (3.96 M) WEST OF THE CENTER OF A RAMP FROM THE TOP OF LEVEE
AJ8327'TO THE DIRT ROAD AT THE TOE OF LEVEE, 29.0 FEET (8.84 M) EAST OF THE
AJ8327'CENTER OF A DIRT ROAD AT THE TOE OF THE LEVEE, 14.0 FEET (4.27 M) EAST
AJ8327'OF THE WEST TOP OF LEVEE IN THE APPROXIMATE CENTER OF A TURN AROUND
AJ8327'AREA AND 14.0 FEET (4.27 M) EAST OF A CARSONITE WITNESS POST. FOR

AJ8327'KEY, CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT, WEST PALM BEACH,
AJ8327'FL AT PHONE NUMBER (407) 686-8800.
AJ8327'
AJ8327'NOTE A MAGNET WAS BURIED NEARBY AT AN UNSPECIFIED POSITION.
AJ8327
AJ8327 STATION RECOVERY (2002)
AJ8327
AJ8327'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AJ8327'THE MONUMENT IS LOCATED APPROXIMATELY 18.9 MILES (30.42 KM) SOUTHEAST
AJ8327'OF BELLE GLADE, FL.
AJ8327'AND 19.7
AJ8327'MILES (31.70 KM) SOUTHWEST OF WEST PALM BEACH, FL. IN THE LOXAHATCHEE
AJ8327'NATIONAL WILDLIFE
AJ8327'REFUGE,
AJ8327'APPROXIMATE SECTION 3, TOWNSHIP 45 SOUTH, RANGE 39 EAST.
AJ8327'
AJ8327'OWNERSHIP IS SOUTH FLORIDA WATER MANAGEMNT DISTRICT
AJ8327'
AJ8327'TO REACH THE MONUMENT FROM THE INTERSECTION OF INTERSTATE I-95 AND
AJ8327'U.S. HIGHWAY 98
AJ8327'(SOUTHERN
AJ8327'BLVD.) IN WEST PALM BEACH, GO WEST FROM THE SAID INTERSECTION 19.7
AJ8327'MILES (31.70 KM) ALONG
AJ8327'U.S.
AJ8327'HIGHWAY 98 TO THE JUNCTION OF U.S. HIGHWAY 98/441 AND COUNTY ROAD 880.
AJ8327'THENCE PROCEED
AJ8327'SOUTHWEST 0.2 MILES (0.32 KM) ALONG COUNTY ROAD 880 TO THE ENTRANCE
AJ8327'ROAD OF TWENTY MILE
AJ8327'BEND
AJ8327'PARK AT THE SOUTHEAST END OF BRIDGE CROSSING THE WEST PALM BEACH
AJ8327'CANAL. THENCE
AJ8327'PROCEED EAST
AJ8327'0.8 MILES (1.29 KM) ALONG SAID ENTRANCE ROAD TO LOCKED GATE WITH
AJ8327'GUARDHOUSE, THENCE
AJ8327'PROCEED
AJ8327'AROUND A CURVE HEADING SOUTH SOUTHWEST 0.4 MILES (0.64 KM) TO A GATE
AJ8327'PROVIDING ACCESS
AJ8327'ONTO THE
AJ8327'L-7 LEVEE. THENCE PROCEED 0.9 MILES (1.45 KM) ALONG THE L-7 LEVEE TO
AJ8327'FLOOD CONTROL
AJ8327'STRUCTURE G-302,
AJ8327'CONTINUE STRAIGHT IN A SOUTHWESTERLY DIRECTION ALONG THE LEVEE 1.6
AJ8327'MILES (2.58 KM) TO
AJ8327'STATION
AJ8327'G-250, THEN 5.0 MILES (8.05 KM) TO STATION G-251. AT STATION G-251 GO
AJ8327'WEST ALONG LEVEE ROAD
AJ8327'0.3 MILES
AJ8327'(0.48 KM) TO THE NORTHEAST GATE AT STATION G-310, THENCE 0.5 MILES
AJ8327'(0.80 KM) SOUTH FROM THE
AJ8327'SOUTHWEST GATE OF G-310 ALONG THE LEVEE ROAD TO THE MARK ON THE WEST
AJ8327'SIDE (RIGHT) OF
AJ8327'THE ROAD.
AJ8327'THE MONUMENT IS 8.2 MILES (13.20 KM) NORTH OF STATION S-6 AND MONUMENT
AJ8327'FCE 1560.
AJ8327'
AJ8327'THE MONUMENT IS 16.0 FEET (4.88 M) WEST OF THE CENTER OF THE LEVEE,
AJ8327'13.0 FEET (3.96 M) WEST
AJ8327'OF THE
AJ8327'CENTER OF A RAMP FROM THE TOP OF LEVEE TO THE DIRT ROAD AT THE TOE OF
AJ8327'LEVEE, 29.0 FEET
AJ8327'(8.84 M) EAST

AJ8327'OF THE CENTER OF A DIRT ROAD AT THE TOE OF THE LEVEE, 14.0 FEET (4.27
AJ8327'M) EAST OF THE WEST
AJ8327'TOP OF
AJ8327'LEVEE IN THE APPROXIMATE CENTER OF A TURN AROUND AREA AND 14.0 FEET
AJ8327'(4.27 M) EAST OF A
AJ8327'CARSONITE
AJ8327'WITNESS POST. FOR KEY, CONTACT SOUTH FLORIDA WATER MANAGEMENT
AJ8327'DISTRICT, WEST PALM
AJ8327'BEACH, FL
AJ8327'AT PHONE NUMBER (407) 686-8800. NOTE A MAGNET WAS BURIED NEARBY AT AN
AJ8327'UNSPECIFIED
AJ8327'POSITION.
AJ8327'
AJ8327'STATION RECOVERY (2002)
AJ8327'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AJ8327'RECOVERED AS DESCRIBED.
AJ8327'
AJ8327'
AJ8327
AJ8327 STATION RECOVERY (2003)
AJ8327
AJ8327'RECOVERY NOTE BY FL DEPT OF ENV PRO 2003 (JLM)
AJ8327'THE MARK IS ABOUT 14.1 MI SOUTHWEST OF WEST PALM BEACH, 13.9 MI
AJ8327'SOUTHEAST OF BELLE GLADE, 6.2 MI NORTH OF FLOOD CONTROL STRUCTURE
AJ8327'S-6, IN THE LOXAHATCHEE NATIONAL WILDLIFE REFUGE CONSERVATION AREA,
AJ8327'IN ESTIMATED SECTION 3, TOWNSHIP 45 SOUTH, RANGE 39 EAST.
AJ8327'
AJ8327'TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 441 (STATE ROAD 7)
AJ8327'AND U.S. HIGHWAY 98 (STATE ROAD 80, SOUTHERN BOULEVARD) IN WEST PALM
AJ8327'BEACH, GO WEST ON STATE ROAD 80, U.S. HIGHWAY 98, 441 (SOUTHERN
AJ8327'BOULEVARD) FOR 11.4 MI TO THE JUNCTION OF COUNTY ROAD 880 ON THE
AJ8327'LEFT, TURN LEFT ON COUNTY ROAD 880 AND GO SOUTHWEST (CROSSING OVER
AJ8327'WEST PALM BEACH CANAL) FOR 3.75 MI TO THE JUNCTION OF A PAVED ROAD ON
AJ8327'THE LEFT, TURN LEFT ON THE PAVED ROAD AND GO SOUTH FOR ABOUT 140.0 FT
AJ8327'TO THE END OF THE PAVEMENT AND THE JUNCTION OF A LEVEE ROAD ON THE
AJ8327'RIGHT, TURN RIGHT ON THE LEVEE ROAD AND GO SOUTHWEST FOR 0.05 MI TO A
AJ8327'LOCKED GATE, PASSING THROUGH THE GATE GO SOUTH ON THE LEVEE ROAD (ON
AJ8327'THE WEST SIDE OF THE CANAL) FOR 5.5 MI TO FLOOD CONTROL STRUCTURE
AJ8327'G-310 ON THE LEFT, CONTINUE SOUTH ON THE LEVEE ROAD FOR 0.55 MI TO A
AJ8327'TURNOUT ON THE RIGHT AND THE MARK ON THE RIGHT, IN THE APPROXIMATE
AJ8327'CENTER OF THE TURNOUT, SET IN THE TOP OF A CONCRETE MONUMENT RECESSED
AJ8327'0.4 FT BELOW THE LEVEL OF THE GROUND AND BELOW THE LEVEL OF THE LEVEE
AJ8327'ROAD.
AJ8327'
AJ8327'LOCATED 33.0 FT EAST OF THE APPROXIMATE CENTERLINE OF A ROAD AT THE
AJ8327'TOE OF THE LEVEE, 16.5 FT WEST OF THE APPROXIMATE CENTERLINE OF THE
AJ8327'LEVEE ROAD AND 12.0 FT EAST OF A CARSONITE WITNESS POST.
AJ8327'
AJ8327'NOTE FOR KEY CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT AT
AJ8327'1-800-432-2045.

*** retrieval complete.
Elapsed Time = 00:00:00

AJ3536 **********
AJ3536 DESIGNATION - S 487 **(TRANSFERRED TO CP1234)**

```
AJ3536  PID         -  AJ3536
AJ3536  STATE/COUNTY-  FL/PALM BEACH
AJ3536  USGS QUAD   -  BIG MOUND SOUTH (1979)
AJ3536
AJ3536                        *CURRENT SURVEY CONTROL
AJ3536  ______________________________________________________________________
AJ3536* NAD 83(1986)-  26 45 52.     (N)    080 29 55.     (W)     SCALED
AJ3536* NAVD 88     -         4.054  (meters)      13.30   (feet)  ADJUSTED
AJ3536  ______________________________________________________________________
AJ3536  GEOID HEIGHT-         -25.55  (meters)                     GEOID03
AJ3536  DYNAMIC HT  -           4.048 (meters)      13.28  (feet)  COMP
AJ3536  MODELED GRAV-     979,110.6   (mgal)                       NAVD 88
AJ3536
AJ3536  VERT ORDER  -  SECOND    CLASS I
AJ3536
AJ3536.The horizontal coordinates were scaled from a topographic map and have
AJ3536.an estimated accuracy of +/- 6 seconds.
AJ3536
AJ3536.The orthometric height was determined by differential leveling
AJ3536.and adjusted by the NATIONAL GEODETIC SURVEY in May 2003.
AJ3536
AJ3536.The geoid height was determined by GEOID03.
AJ3536
AJ3536.The dynamic height is computed by dividing the NAVD 88
AJ3536.geopotential number by the normal gravity value computed on the
AJ3536.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ3536.degrees latitude (g = 980.6199 gals.).
AJ3536
AJ3536.The modeled gravity was interpolated from observed gravity values.
AJ3536
AJ3536;                    North         East     Units  Estimated Accuracy
AJ3536;SPC FL E     -   269,400.      249,870.      MT  (+/- 180 meters Scaled)
AJ3536
AJ3536                          SUPERSEDED SURVEY CONTROL
AJ3536
AJ3536  NAVD 88 (09/17/01)    4.065  (m)           13.34   (f) UNKNOWN     2 1
AJ3536
AJ3536.Superseded values are not recommended for survey control.
AJ3536.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ3536.See file dsdata.txt to determine how the superseded data were derived.
AJ3536
AJ3536_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK498604(NAD 83)
AJ3536_MARKER: DD = SURVEY DISK
AJ3536_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ3536_STAMPING: S 487 2000
AJ3536_MARK LOGO: FLDEP
AJ3536_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ3536_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ3536+STABILITY: SURFACE MOTION
AJ3536_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ3536+SATELLITE: SATELLITE OBSERVATIONS - 2000
AJ3536
AJ3536  HISTORY     - Date     Condition        Report By
AJ3536  HISTORY     - 2000     MONUMENTED       FLDEP
AJ3536  HISTORY     - 20070205 GOOD             INDIV
AJ3536
AJ3536                           STATION DESCRIPTION
AJ3536
AJ3536'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ3536'THE MARK IS ABOUT 29.2 MI (47.0 KM) NORTHWEST OF PALM BEACH, 10.8 MI
AJ3536'(17.4 KM) SOUTHEAST OF CANAL POINT, IN SECTION 1, TOWNSHIP 43 SOUTH,
```

AJ3536'RANGE 38 EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY
AJ3536'441, 98, COUNTY ROAD 715 AND COUNTY ROAD 700 IN CANAL POINT, GO EAST
AJ3536'ON U.S. HIGHWAY 98 (COUNTY ROAD 700) FOR 1.75 MI (2.82 KM) TO THE
AJ3536'RAILROAD TRACKS AND A CONCRETE BRIDGE ON THE LEFT SPANNING THE WEST
AJ3536'PALM BEACH CANAL (RAILROAD TRACKS RUNS THROUGH BRIDGE), TURN LEFT
AJ3536'CROSSING OVER THE WEST PALM BEACH CANAL TO THE JUNCTION OF A LEVEE
AJ3536'ROAD ON THE RIGHT, TURN RIGHT ON LEVEE ROAD NUMBER 10 PARALLELLING THE
AJ3536'WEST PALM BEACH CANAL AND GO SOUTHERLY FOR 8.95 MI (14.40 KM) TO A
AJ3536'BRIDGE ON THE RIGHT AND THE MARK ON THE RIGHT, SET IN THE TOP OF A
AJ3536'ROUND CONCRETE MONUMENT RECESSED 0.6 FT (18.3 CM) BELOW THE LEVEL OF
AJ3536'THE GROUND AND 4.0 FT (1.2 M) BELOW THE LEVEL OF THE LEVEE ROAD.
AJ3536'LOCATED 103.5 FT (31.5 M) SOUTHEAST OF THE APPROXIMATE CENTERLINE OF
AJ3536'THE BRIDGE ROAD, 53.0 FT (16.2 M) SOUTHWEST OF THE APPROXIMATE
AJ3536'CENTERLINE OF THE LEVEE ROAD, 26.4 FT (8.0 M) NORTHWEST OF A POWER
AJ3536'POLE WITH A METER BOX ATTACHED, 17.0 FT (5.2 M) SOUTHEAST OF THE
AJ3536'NOERHEAST CORNER OF A 10.0 FT (3.0 M) TALL CHAINLINK FENCE, 13.0 FT
AJ3536'(4.0 M) OF THE SOUTHEAST CORNER OF FACILITY BUILDING NUMBER SR 700 ME
AJ3536'HAT 6 AND 4.4 FT (1.3 M) NORTHEAST OF A SQUARE CONCRETE POLE.
AJ3536
AJ3536 STATION RECOVERY (2007)
AJ3536
AJ3536'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2007
AJ3536'RECOVERED IN GOOD CONDITION.
1 National Geodetic Survey, Retrieval Date = JULY 25, 2007
AJ5667 **********

AD0706 **********
AD0706 DESIGNATION - U 74 **(TRANSFERRED TO CP1137)**
AD0706 PID - AD0706
AD0706 STATE/COUNTY- FL/PALM BEACH
AD0706 USGS QUAD - PAHOKEE (1970)
AD0706
AD0706 *CURRENT SURVEY CONTROL
AD0706 ______
AD0706* NAD 83(1986)- 26 51 50. (N) 080 37 54. (W) SCALED
AD0706* NAVD 88 - 7.555 (meters) 24.79 (feet) ADJUSTED
AD0706 ______
AD0706 GEOID HEIGHT- -25.63 (meters) GEOID03
AD0706 DYNAMIC HT - 7.543 (meters) 24.75 (feet) COMP
AD0706 MODELED GRAV- 979,113.0 (mgal) NAVD 88
AD0706
AD0706 VERT ORDER - FIRST CLASS II
AD0706
AD0706.The horizontal coordinates were scaled from a topographic map and have
AD0706.an estimated accuracy of +/- 6 seconds.
AD0706
AD0706.The orthometric height was determined by differential leveling
AD0706.and adjusted by the NATIONAL GEODETIC SURVEY in June 1991.
AD0706
AD0706.The geoid height was determined by GEOID03.
AD0706
AD0706.The dynamic height is computed by dividing the NAVD 88
AD0706.geopotential number by the normal gravity value computed on the
AD0706.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD0706.degrees latitude (g = 980.6199 gals.).
AD0706
AD0706.The modeled gravity was interpolated from observed gravity values.
AD0706
AD0706; North East Units Estimated Accuracy
AD0706;SPC FL E - 280,380. 236,600. MT (+/- 180 meters Scaled)
AD0706

AD0706   SUPERSEDED SURVEY CONTROL
AD0706
AD0706 NGVD 29 (??/??/92)   7.931 (m)   26.02   (f) ADJ UNCH   2 0
AD0706
AD0706.Superseded values are not recommended for survey control.
AD0706.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD0706.See file dsdata.txt to determine how the superseded data were derived.
AD0706
AD0706_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK365714(NAD 83)
AD0706_MARKER: DB = BENCH MARK DISK
AD0706_SETTING: 38 = SET IN THE ABUTMENT OR PIER OF A LARGE BRIDGE
AD0706_SP_SET: RAILROAD ABUTMENT
AD0706_STAMPING: U 74 1934
AD0706_MARK LOGO: CGS
AD0706_MAGNETIC: N = NO MAGNETIC MATERIAL
AD0706_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD0706_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD0706+SATELLITE: SATELLITE OBSERVATIONS - November 14, 2001
AD0706
AD0706 HISTORY   - Date   Condition   Report By
AD0706 HISTORY   - 1934   MONUMENTED   CGS
AD0706 HISTORY   - 1962   GOOD   NGS
AD0706 HISTORY   - 19900317 POOR   USPSQD
AD0706 HISTORY   - 20010425 GOOD   FLDEP
AD0706 HISTORY   - 20010511 GOOD   EMCINC
AD0706 HISTORY   - 20011114 GOOD   FLDEP
AD0706
AD0706   STATION DESCRIPTION
AD0706
AD0706'DESCRIBED BY COAST AND GEODETIC SURVEY 1934
AD0706'0.8 MI NE FROM CANAL POINT.
AD0706'0.8 MILE NORTHEAST ALONG THE FLORIDA EAST COAST RAILWAY FROM
AD0706'THE STATION AT CANAL POINT, AT THE NORTHEAST END OF THE RAILROAD
AD0706'DRAWBRIDGE OVER WEST PALM BEACH CANAL, IN THE TOP OF THE NORTHWEST
AD0706'END OF THE NORTHEAST HEAD WALL, 72 FEET NORTHEAST OF THE CENTER
AD0706'LINE OF THE CANAL, AND 5.5 FEET NORTHWEST OF THE NORTHWEST RAIL.
AD0706
AD0706   STATION RECOVERY (1962)
AD0706
AD0706'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1962
AD0706'RECOVERED IN GOOD CONDITION.
AD0706
AD0706   STATION RECOVERY (1990)
AD0706
AD0706'RECOVERY NOTE BY US POWER SQUADRON 1990 (REK)
AD0706'MARK RECOVERED IN POOR CONDITION.
AD0706
AD0706   STATION RECOVERY (2001)
AD0706
AD0706'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
AD0706'THE MARK IS IN CANAL POINT ABOUT 15.5 MI (24.9 KM) NORTH OF SOUTH BAY,
AD0706'ON THE EAST SIDE OF LAKE OKEECHOBEE, IN SECTION 33, TOWNSHIP 41 SOUTH,
AD0706'RANGE 37 EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY
AD0706'441, 98, COUNTY ROAD 715 AND COUNTY ROAD 700 IN CANAL POINT, GO
AD0706'NORTHERLY ON U.S. HIGHWAY 441 AND 98 FOR 0.1 MI (0.2 KM) TO THE NORTH
AD0706'END OF BRIDGE NUMBER 930465 SPANNING WEST PALM BEACH CANAL AND THE
AD0706'MARK ON THE LEFT, SET FLUSH IN THE TOP OF THE NORTHWEST END OF THE
AD0706'NORTHEAST RAILROAD ABUTMENT 2.0 FT (0.6 M) ABOVE THE LEVEL OF U.S.
AD0706'HIGHWAY 441. LOCATED 90.2 FT (27.5 M) WEST OF THE CENTERLINE OF U.S.
AD0706'HIGHWAY 441, 64.5 FT (19.7 M) WEST OF THE NORTHWEST END OF BRIDGE
AD0706'NUMBER 930465, 5.5 FT (1.7 M) NORTHWEST OF THE NORTHWEST RAIL OF THE

```
AD0706'RAILROAD TRACKS.
AD0706
AD0706                          STATION RECOVERY (2001)
AD0706
AD0706'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
AD0706'RECOVERED AS DESCRIBED.
AD0706'
AD0706
AD0706                          STATION RECOVERY (2001)
AD0706
AD0706'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
AD0706'RECOVERED AS DESCRIBED.
AD0706'
```

6 ~ OBSERVATION LOGS – HHD-LAKE OKEECHOBEE AREA ~ 6

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1192		10/26/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address GASPARIAN @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:21 Stop: 10:51

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1138		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:40 Stop: 10:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1193		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1193	299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 1050
Actual Start: 0957 Stop: 1050

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. Merrick-0002 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): FDEM-PB1

Station PID, if any:

Date (UTC): 10/26/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 299

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:42 Stop: 5:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220380002**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS15A09043**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60121048**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Tribrach:

Circle one:
None Wild Topcon Other (Fixed Mount)

Last Calibration Date: _____

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1137		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: S. HORUSBY
Phone #**(850) 678-5141**
e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 09:30 Stop: 10:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1234

Station PID, if any:

Date (UTC): 10/26/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 299 298 298

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:14 Stop: 11:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other (Fixed Mount)

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.80 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): DOT BM

Station PID, if any:

Date (UTC): 10/26/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 299

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: ____ Meters

NAVD88 Orthometric Height: ____ Meters

GEOID99 Geoid Height: ____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address: ____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ____ Stop: ____

Actual Start: 9:40 Stop: 10:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters

Vehicle Parked ____ Meters
____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: ____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1139		10-25-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:04 Stop: 10:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.00	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1140		10/26/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:47 Stop: 12:26

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One: (Camcorder Battery) / 12V DC / ~~110V AC~~ / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
LICAN		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299 ~~300~~

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:18 Stop: 12:25

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1139		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: S. HORNSBY
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 11:10 Stop: 12:25

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

		Circle
Antenna plumb before session?	(Y / N)	Yes or No
Antenna plumb after session?	(Y / N)	-If no,
Antenna oriented to true north?	(Y / N)	explain
Weather observed at antenna ht.	(Y / N)	
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m.	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:_____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1140		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:11 Stop: 12:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description:	Attached / Submitted Earlier
Visibility Obstruction Form:	Attached / Submitted Earlier
Photographs of Station:	Attached / Submitted Earlier
Pencil Rubbing:	Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1247		10/26/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1247	299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: Meters	Agency Full Name: Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Drisdell
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____ Actual Start: 11:26 Stop: 12:42

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1141		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1141	299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: David Ham
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 1155 Stop: 1225	Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B**; **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1197		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1197	299 298

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	DAVID HAM
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1140 Stop: 1225

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

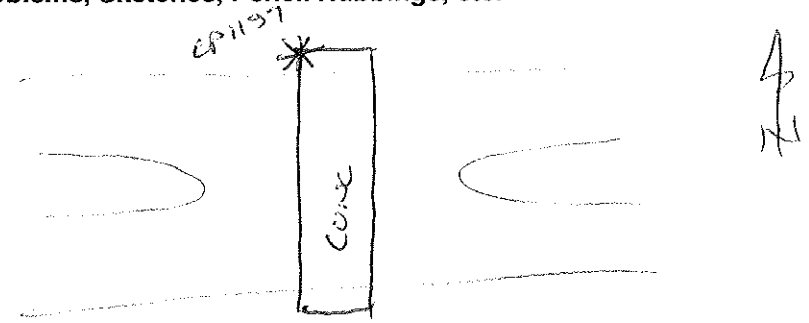
Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.



Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1144		10/26/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone **#(850) 678-5141**

e-mail address GASPARIAN @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:55 Stop: 18:59

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:
Circle One: (Camcorder Battery) / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

		Circle
Antenna plumb before session?	(Y / N)	
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1141		10-26-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 299
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: ____ Meters NAVD88 Orthometric Height: ____ Meters GEOID99 Geoid Height: ____ Meters	Agency Full Name: **Gustin, Cothern & Tucker, Inc.** Operator Full Name: S. Horsley Phone #**(850) 678-5141** e-mail address ____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:47 Stop: 15:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8 Model 2**	Mdl: **TSC2**	Mdl: **R8 Model 2**
P/N: **60158-66**	P/N: **ST1-TY5GMDB**	P/N: **60158-66**
S/N: **4629119338**	S/N: **SS27A19144**	S/N: **4629119338**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle Yes or No -If no, explain
Antenna plumb after session?	(Y / N)	
Antenna oriented to true north?	(Y / N)	
Weather observed at antenna ht.	(Y / N)	
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes, describe.
Eccentric occupation (>0.5 mm)	(Y / N)	
Any obstructions above 10º?	(Y / N)	Use Vis. Form
Radio interference source nearby?	(Y / N)	

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP143		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 12:38 Stop: 3:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
S L 2 7		10-20-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			293

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: David Klam
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
C Schedule Start: 1430 Stop: 1500
D Actual Start: 1430 Stop: 1610

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1198		10/26/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1198	299 ~~298~~

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		_____ Meters	David Ham
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		_____ Meters	e-mail address
			_____@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 1306 Stop: 1500	Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.905	1.8	5.905
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1142		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299 ~~300~~

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1:12 Stop: 3:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1241

Station PID, if any:

Date (UTC): 10/26/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1241

Day of Year (Julian): 299

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Dright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1106 Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1200

Station PID, if any:

Date (UTC): 10-26-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 299

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Hornsby

Phone #**(850) 678-5141**

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 15:40 Stop: 16:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height	**Before sessions begins:** Measure and record both **Meters** and **Feet**		**Before sessions ends:** Measure and record both **Meters** and **Feet**	
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	**Time (UTC)**	**Dry Bulb Temp** Fahrenheit	Celsius	**Wet Bulb Temp** Fahrenheit	Celsius	**Relative % Humidity**	**Atmospheric Pressure** Inches Hg	Millibars	**Weather Codes**
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1198		10/26/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARILLA

Phone #(850) 678-5141

e-mail address GASPARILLA@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:30 Stop: ~~15:24~~ 16:22

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Y 255		10/20/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			~~292~~ 293

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	DAVID Hamm
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1530 Stop: 1620

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.905	1.8	5.905
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1204		10-26-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 3:40 Stop: 4:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56Z	2.0	6.56Z
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1145
Station PID, if any:
Date (UTC): 10-26-07

General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 1145
Day of Year (Julian): 299

Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: William E Wright
Phone #(850) 678-5141
e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 3:50 Stop: 4:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters
Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ___

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): FIR 3501 CP1204

Station PID, if any:

Date (UTC): 10-27-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:08 Stop: 9:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1219

Station PID, if any:

Date (UTC): 10/27/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARETTO

Phone #(850) 678-5141

e-mail address: GASPARETTO@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:10 Stop: 15:26

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Firm Ver:

Circle One: ~~Camcorder Battery~~ / 12V DC ~~110V AC~~ / ~~Other~~

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1146		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horusby

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 07:54 Stop: 09:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1209		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: JOSH WOOD
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 8:25 Stop: 9:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
C 414		10/27/09

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 0749 Stop: 0900

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
"TIDAL 1"		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299-300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Daniel Kamula
Phone #(850) 678-5141
e-mail address: _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: 9:00
Actual Start: 7:52 Stop: 9:01

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

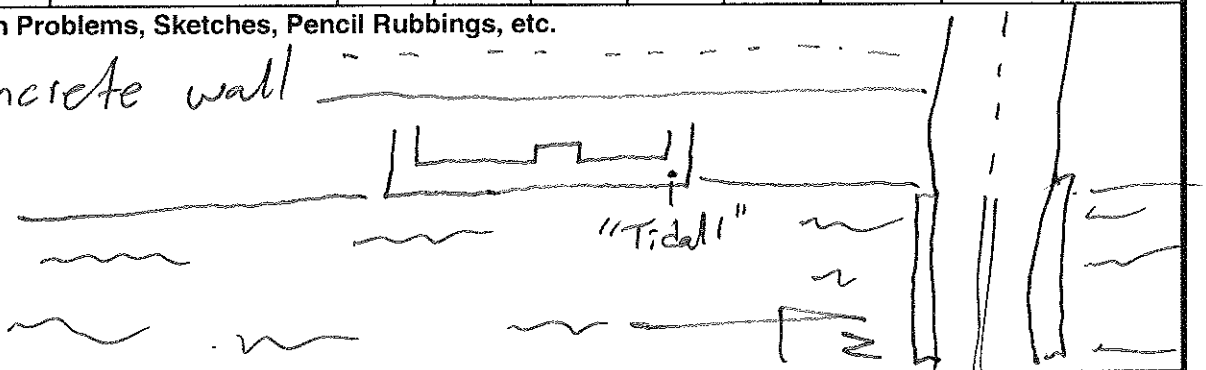
Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Point on Concrete wall



Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1145		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1145	300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 7:42 Stop: 9:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y) N
Antenna plumb after session?	(Y) N
Antenna oriented to true north?	(Y) N
Weather observed at antenna ht.	(Y / N)
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N)
Eccentric occupation (>0.5 mm)	(Y / N)
Any obstructions above 10°?	(Y / N)
Radio interference source nearby?	(Y / N)

Circle Yes or No; -If no, explain; If yes, describe. Use Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B**; **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1150		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GASPARIAN, GREGORY

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 09:30 Stop: 10:42

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1147		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 07:45 Stop: 09:11

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
~~110V AC~~ / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FCM Bridge 2		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 10:10 Stop: 10:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CR 1149		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horusby

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 09:12 Stop: 12:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat_____.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1209		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:00 Stop: 10:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
C 414		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): 26 ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: ____ Meters
NAVD88 Orthometric Height: ____ Meters
GEOID99 Geoid Height: ____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: DAVID HAM
Phone #**(850) 678-5141**
e-mail address ____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ____ Stop: ____
Actual Start: 0905 Stop: 1040

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked ____ Meters
____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1148		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1148	300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:18 Stop: 10:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: ~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 12:11		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			299 300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Daniel Komula
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 10:40
Actual Start: 9:27 Stop: 10:41

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1150		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address GASPARIAN @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:25 Stop: 12:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One:
(Camcorder Battery) 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): FIR 3501 GCT CP1.13

Station PID, if any:

Date (UTC): 10-27-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:12 Stop: 12:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56Z	2.0	6.56Z
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station / Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 12		12-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Hobbs

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:15 Stop: 12:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): BRIDGE 2

Station PID, if any:

Date (UTC): 10-27-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:33 Stop: 12:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
L07		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: DAVID HAMM
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 1104 Stop: 1225

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1303 - PA-1

Station PID, if any:

Date (UTC): 10/27/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 299 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: 12:25

Actual Start: 11:55 Stop: 12:43

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters FT

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1151		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1151	300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E Wright IV
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	Wright e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:56 Stop: 12:25

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FND 3501 CP1157		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Steven Chad Evans
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:52 Stop: 1:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220363683**	S/N: **5508A03028**	S/N: **12635782**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1302 - PA1		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horusky

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:43 Stop: 13:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -if no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1152		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1:10 Stop: 1:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1305-PA1		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: DAVID ADAM
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 1340
Actual Start: 1302 Stop: 1350

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tripbrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

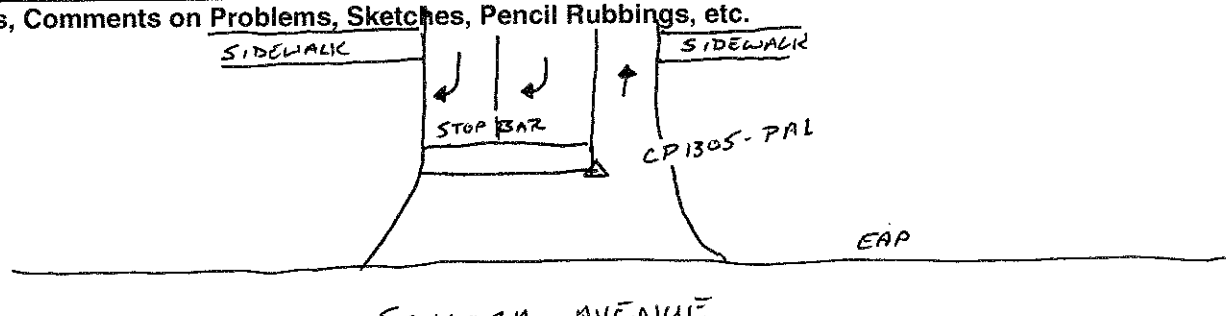
Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.



Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1303 - PA - 1B		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: 1:40
Actual Start: 12:44 Stop: 1:41

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1304 -PA1

Station PID, if any:

Date (UTC): 10/27/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone **#(850) 678-5141**

e-mail address GASPARIAN @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 12:44 Stop: 13:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One:
~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / ~~N~~) Circle
Antenna plumb after session? (Y / ~~N~~) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1153

Station PID, if any:

Date (UTC): 10/27/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1153

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): 0

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:46 Stop: 13:44

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
SIR 3501 CP1301-PA1		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 2:19 Stop: 3:26

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1214		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: S. Horusky
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 13:54 Stop: 15:26

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 m Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1154

Station PID, if any:

Date (UTC): 10-27-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____.

Actual Start: 2:05 Stop:_____.

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1305-PA1

Station PID, if any:

Date (UTC): 10/27/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Ham

Phone #**(850) 678-5141**

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 1400 Stop: 1557

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1218
Station PID, if any:
Date (UTC): 10/27/07

General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID:
Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR
Project Number: **E07066**
Station Serial # (SSN):
Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Daniel Komadina
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 3:26
Actual Start: 2:56 Stop: 3:27

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.566
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
LP 1153		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1153	300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: W. Hamm E Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			Wright @GCTengineering.com (e-mail address)

Observation Session Times (UTC): Schedule Start: _____ Stop: _____ Actual Start: 1345 Stop: 1526

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): FND 3501 CP1536

Station PID, if any:

Date (UTC): 10-27-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 4:09 Stop: 4:47

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1154		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horsley

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:58 Stop: 16:47

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1155

Station PID, if any:

Date (UTC): 10-27-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 4:17 Stop: 4:47

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1219

Station PID, if any:

Date (UTC): 10/27/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 300

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 4:47
Actual Start: 4:04 Stop: 4:48

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1157		10/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1157	300

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William F Wright III

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 19:57 Stop: 16:47

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tripbrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation (check applicable FBN / CBN / PAC / SAC / BM): CP 1222		Station PID, if any:	Date (UTC): 10/27/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): ~~289~~ 300
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC)

Schedule Start: _____ Stop: _____

Actual Start: 16:03 Stop: 16:47

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1157

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1157

Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 844 Stop: 920

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1160		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			~~300~~ 301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 08:15 Stop: 09:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Firm Ver:

Circle One: ~~Camcorder Battery~~ / 12V DC / ~~110V AC~~ / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1222		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Lomula

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: 9:20
Actual Start: 8:04 Stop: 9:22

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1159

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1159

Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: David Hamm

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 0827 Stop: 0920

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1223		10-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: ____ Stop: ____
Actual Start: 8:50 Stop: 9:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSCe**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **45185-20**	P/N: **41249-00**
S/N: **0220346379**	S/N: **00013575**	S/N: **60100962**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked ____Meters ____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1160		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:25 Stop: 10:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One: ~~Camcorder Battery~~ 12V DC ~~110V AC~~ / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
	AIRPORT			10-28-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 301
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: S. Hornsby
Phone #(850) 678-5141
e-mail address ___@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ___ Stop: ___
Actual Start: 08:11 Stop: 09:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8 Model 2	Mdl: TSC2	Mdl: R8 Model 2
P/N: 60158-66	P/N: ST1-TY5GMDB	P/N: 60158-66
S/N: 4629119338	S/N: SS27A19144	S/N: 4629119338
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat .
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1153		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #**(850) 678-5141**
e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 8:34 Stop: 9:15

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
A S24		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright IV
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 10:22 Stop: 10:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220337267	S/N: SS07A02450	S/N: 12368787
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session?	(Y) / N) Circle
Antenna plumb after session?	(Y) / N) Yes or No
Antenna oriented to true north?	(Y) / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: (Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Q 529		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: 10:57
Actual Start: 10:00 Stop: 10:58

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 ~~Meters~~ FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1224		10-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Hunn

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 0941 Stop: 1055

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1223

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 921 Stop: 1055

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1242		10-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horusby

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 09:50 Stop: 10:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
FND 3501 CP1161

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad E. Lewis

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:45 Stop: 10:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Q 529		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:25 Stop: 13:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1087		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY

Phone #(850) 678-5141

e-mail address: GASPARIAN@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:21 Stop: 13:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1089		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Daniel Lomela
Phone #**(850) 678-5141**
e-mail address _____@GCTengineering.com

Observation Session Times (UTC): 1:00
Schedule Start: _____ Stop: 1:02
Actual Start: 11:52 Stop: 1:01

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. CT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Note: this point is not in it Designed area

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
~~CP1090~~ CP1091		10/28/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: ~~1090~~ 1091 — Day of Year (Julian): 301
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN): — Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1112 Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

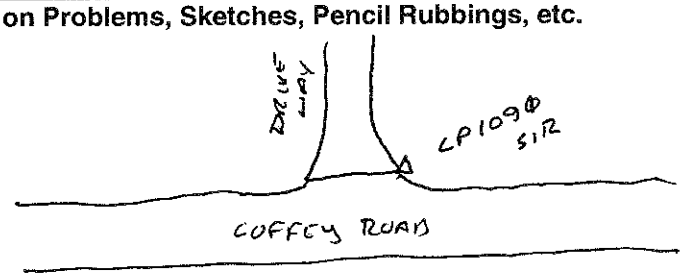
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.



Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): C 519

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:30 Stop: 1:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station / Observation / Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1088		10-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Hornsby

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:18 Stop: 13:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): Set NAD 3501 CP1090

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:24 Stop: 1:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1086		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1086	301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		0

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright
		Meters	Phone #**(850) 678-5141**
		GEOID99 Geoid Height:	e-mail address
		Meters	Wright **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:45 Stop: 14:15

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220337267**	S/N: **SS07A02450**	S/N: **12368787**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1083		10/28/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 301
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:20 Stop: 14:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One: ~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (X) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one.
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP1242 — Station PID, if any: — Date (UTC): 10/28/07

General Location: Lake Okeechobee, Florida — Airport ID, if any: — Station 4-Character ID: — Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR — Project Number: E07066 — Station Serial # (SSN): — Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' " — NAD83 Longitude (W): ° ' " — NAD83 Ellipsoidal Height: ____ Meters — NAVD88 Orthometric Height: ____ Meters — GEOID99 Geoid Height: ____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Daniel Komula
Phone #**(850) 678-5141**
e-mail address ____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ____ Stop: 2:15
Actual Start: 1:40 Stop: 2:16

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked ____Meters ____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562. Meters. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1087		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: David Ham
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start:_____ Stop:_____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): Q 519

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1:28 Stop: 2:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
[illegible]		[illegible]

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			[illegible]

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		_____ Meters	S. Hardesty
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		_____ Meters	e-mail address
			_____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:19 Stop: 14:15

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8 Model 2**	Mdl: **TSC2**	Mdl: **R8 Model 2**
P/N: **60158-66**	P/N: **ST1-TY5GMDB**	P/N: **60158-66**
S/N: **4629119338**	S/N: **SS27A19144**	S/N: **4629119338**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIR 3501 CP 1085		10-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	STEVEN CHAD EVANS
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 1:41 Stop: 2:15

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1221		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1221	301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright III

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 15:17 Stop: 15:47

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1223		10/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			301

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 4:00
Actual Start: 2:38 Stop: 4:08

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP 1083			10/28/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 301
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1:20 Stop: 4:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627150274	S/N: SS23A15407	S/N: 4627150274
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: ~~Camcorder Battery~~ / 12V DC / ~~110V AC~~ / ~~Other~~		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): Q 519

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 301

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 2:16 Stop: 3:47

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1077

Station PID, if any:

Date (UTC): 10-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Hopkins

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 07:40 Stop: 09:18

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date:_____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIR 3501 CP1220		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: _____ Meters NAVD88 Orthometric Height: _____ Meters GEOID99 Geoid Height: _____ Meters	Agency Full Name: **Gustin, Cothern & Tucker, Inc.** Operator Full Name: Steven Chad Evans Phone #**(850) 678-5141** e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 7:47 Stop: 9:18

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
AIRPORT		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 7:39 Stop: 9:18

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1078		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1078	302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: David Harm

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 0805 Stop: 0918

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1076		Station PID, if any:	Date (UTC): 10/29/07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 302
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komala

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: 9:18

Actual Start: 7:46 Stop: 9:18

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 40406-46	P/N: ST1-TY5GMDB	P/N: 41249-00
S/N: 0220262321	S/N: SS27A18921	S/N: 60052064
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0 m	6.562	2.0 m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 ~~Meters~~. FT

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP1221			10/29/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1221	Day of Year (Julian): 302
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:48 Stop: 9:18

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1079			Station PID, if any:	Date (UTC): 10/29/07
General Location: Lake Okeechobee, Florida		Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 302
Project Name: Lake Okeechobee Area LiDAR		Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A & B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start 08:45 Stop: 10:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One: ~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1082		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horusby

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 09:43 Stop: 10:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
FIR 3501 CP 1083

Station PID, if any:

Date (UTC): 10-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:55 Stop: 10:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): Q 519

Station PID, if any:

Date (UTC): 10-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:07 Stop: 10:46

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1081

Station PID, if any:

Date (UTC): 10/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: David Ham

Phone #**(850) 678-5141**

e-mail address HAM @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 0940 Stop: 1040.

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
RERUN CP1223		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 10:40
Actual Start: 9:37 Stop: 10:44

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) if yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1080

Station PID, if any:

Date (UTC): 10/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1080

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:57 Stop: 10:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1075		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address GASPARIAN@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:12 Stop: 12:53

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1073		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horusby

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:25 Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIR 3501 CP.1220		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:22 Stop: 12:53

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1218		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Woop
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:23 Stop: 12:53

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1024

Station PID, if any:

Date (UTC): 10/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: David Ham

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1122 Stop: 1253

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): Y530

Station PID, if any:

Date (UTC): 10/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: 12:53

Actual Start: 11:09 Stop: 12:54

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N — Circle
Antenna plumb after session? (Y) N — Yes or No
Antenna oriented to true north? (Y / N) — If no,
Weather observed at antenna ht. (Y / N) — explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) — If yes,
Eccentric occupation (>0.5 mm) (Y / N) — describe.
Any obstructions above 10º? (Y / N) — Use
Radio interference source nearby? (Y / N) — Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 ~~Meters.~~ FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1076		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1076	302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141** e-mail address Wright @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____ Actual Start: 11:17 Stop: 12:53

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1220		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:21 Stop: 14:04

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
~~110V AC~~ / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1073		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horusby

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:24 Stop: 14:04

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
FIR 3501 CP-1215

Station PID, if any:

Date (UTC): 10-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1:34 Stop: 2:04

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1213

Station PID, if any:

Date (UTC): 10-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1:14 Stop: 2:04

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP [redacted] 1072		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	DAVID Hamm
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: ~~1522~~ 1534 Stop: 1404

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): 1530

Station PID, if any:

Date (UTC): 10/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D.

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 2:04
Actual Start: 12:56 Stop: 2:15

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Ø / N) Circle
Antenna plumb after session? (Ø / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1071

Station PID, if any:

Date (UTC): 10/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1071

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William F. Wright IV

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:27 Stop: 15:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Double session

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1070		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	S. Horsley
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____.
Actual Start: 14:33 Stop:_____.

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8 Model 2**	Mdl: **TSC2**	Mdl: **R8 Model 2**
P/N: **60158-66**	P/N: **ST1-TY5GMDB**	P/N: **60158-66**
S/N: **4629119338**	S/N: **SS27A19144**	S/N: **4629119338**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:_____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
FIR 3501 CP-1215

Station PID, if any:

Date (UTC): 10-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 2:10 Stop: 3:25

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): Y 530

Station PID, if any:

Date (UTC): 10/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): o ' "

NAD83 Longitude (W): o ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARJAN

Phone #(850) 678-5141

e-mail address GASPARJAN @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 14:30 Stop: 15:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:

Circle One: ~~Camcorder Battery~~ / 12V DC / ~~110V AC~~ / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
BRIDGE 2		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 2:39 Stop: 4:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1069

Station PID, if any:

Date (UTC): 10/23/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1429 Stop: 1525

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1217		10/29/01

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Daniel Komula
Phone #**(850) 678-5141**
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: 3:25
Actual Start: 2:56 Stop: 3:25

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1069		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1069	302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:45 Stop: 16:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.962	1.8	5.962
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1067		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. HORUSBY

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:38 Stop: 16:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
FIR 3501 CP-1216

Station PID, if any:

Date (UTC): 10-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 302

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 4:11 Stop: 4:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1210		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		F

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	DAVID GRAM
		GEOID99 Geoid Height:	Phone **#(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 1616 Stop: 1645

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1217		10/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			302

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 4:45
Actual Start: 3:30 Stop: 4:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1067		10/29/07
General Location: Lake Okeechobee, Florida	**Airport ID, if any:**	**Station 4-Character ID:** / **Day of Year (Julian):** 302
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	**Station Serial # (SSN):** / **Session ID (A,B,C etc.):** F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: 15:54 Stop: _____
Actual Start: 15:54 Stop: 16:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:
Circle One: ~~Camcorder Battery~~ / 12V DC / ~~110V AC~~ / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Occupation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIR 3501 CP-1212		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: 7:52 Stop: 9:50 Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
LP 1064		10/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1064	303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address: Wright **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:16 Stop: 9:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1065		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Hornsby

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 08:03 Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1210		10/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: DAVID HAM
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141** e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____. Actual Start: 0811 Stop: 0950.

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees.

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07.

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1066		10/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Daniel Komulka
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: 9:50
Actual Start: 9:00 Stop: 9:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 FT ~~Meters~~
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.
Note: Had to Reset in Different location
lat: N 26° 23' 33.9"
Lon: W 080° 59' 40.3"

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1240		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Josh Wood
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:20 Stop: 9:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1067		10/30/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 303
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC)

Schedule Start: _____ Stop: _____

Actual Start: 7:58 Stop: 9:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Firm Ver:

Circle One
~~Camcorder Battery~~ / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) FIR 3501 CP-1240		Station PID, if any:	Date (UTC): 10-30-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 303
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address ___ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 11:05 Stop: 11:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220363683**	S/N: **5508A03028**	S/N: **12635782**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1064

Station PID, if any:

Date (UTC): 10/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1064

Day of Year (Julian): 303

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright III

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:00 Stop: 11:36

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1063		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: S. Horsley
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:12 Stop: 11:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1210

Station PID, if any:

Date (UTC): 10/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 303

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1015 Stop: 1135

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Y535		10/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Comuda

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 11:35
Actual Start: 10:15 Stop: 11:36

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 Meters. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
S 410 X		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:08 Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NET-0274 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation. (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1243		10/30/07

General Location	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:40 Stop: 11:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Firm Ver:
Circle One: ~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627150274**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N — Circle
Antenna plumb after session? (Y) N — Yes or No
Antenna oriented to true north? (Y / N) — If no,
Weather observed at antenna ht. (Y / N) — explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) — If yes,
Eccentric occupation (>0.5 mm) (Y / N) — describe.
Any obstructions above 10°? (Y / N) — Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
FIR 3501 CP1058

Station PID, if any:

Date (UTC): 10-30-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 303

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 11:48 Stop: 1:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
LP 1062		10/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name: William E. Wright IV.
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:58 Stop: 13:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220337267**	S/N: **SS07A02450**	S/N: **12368787**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1263		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: S. Hopusby
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 12:00 Stop: 13:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): COR AZ

Station PID, if any:

Date (UTC): 10/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 303

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start:_____ Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1060

Station PID, if any:

Date (UTC): 10/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 303

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: 1:10

Actual Start: 11:53 Stop: 1:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 ~~Meters~~. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DA

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1061		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Josh Wedid
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:30 Stop: 1:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP 1243			10/30/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 303
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address: @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:43 Stop: 13:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627150274	S/N: SS23A15407	S/N: 4627150274
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / ~~110V AC~~ / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIR 3501 CP1207		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: Meters NAVD88 Orthometric Height: Meters GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 2:30 Stop: 3:27

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1208		10/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright II
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141** e-mail address Lbright **@GCTengineering.com**

Observation Session Times (UTC): Schedule Start: _____ Stop: _____ Actual Start: 14:54 Stop: 15:26

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220337267**	S/N: **SS07A02450**	S/N: **12368787**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
5410X		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name: S. Horsley
		Meters	Phone #**(850) 678-5141**
		GEOID99 Geoid Height:	e-mail address
		Meters	**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:25 Stop: 15:06

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1059

Station PID, if any:

Date (UTC): 10/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 303

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1400 Stop: 1530

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19331**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1058		10/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Daniel Komula

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: 3:26
Actual Start: 1:27 Stop: 3:26

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562	2.0m	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 6.562 ~~Meters~~. FT
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1057		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			303

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: JOSH WOOD
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1:46 Stop: 3:26

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSCe**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **45185-20**	P/N: **41249-00**
S/N: **0220346379**	S/N: **00013575**	S/N: **60100962**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle Yes or No -If no, explain
Antenna plumb after session?	(Y / N)	
Antenna oriented to true north?	(Y / N)	
Weather observed at antenna ht.	(Y / N)	
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes, describe. Use Vis. Form
Eccentric occupation (>0.5 mm)	(Y / N)	
Any obstructions above 10°?	(Y / N)	
Radio interference source nearby?	(Y / N)	

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.00 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-0274 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any	Date (UTC)
CP 1240		10/30/07

General Location	Airport ID, if any	Station 4-Character ID	Day of Year (Julian)
Lake Okeechobee, Florida			303

Project Name	Project Number	Station Serial # (SSN)	Session ID (A,B,C etc.)
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N)	NAD83 Longitude (W)	NAD83 Ellipsoidal Height	Agency Full Name
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: GREGORY GASPARIAN
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC): Schedule Start: ____ Stop: ____ Actual Start: 14:22 Stop: 15:30

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627150274
Cable Length N/A Meters
Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
CP1201 FIR3501

Station PID, if any:

Date (UTC): 11-2-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 306

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:29 Stop: 10:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before session begins: Measure and record from Meters	and Feet	After session ends: Measure and record from Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station (NGS) Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1201 FIR 3501		11-2-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			306

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:27 Stop: 11:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before session begins: Measure and record both Meters and Feet		Before session ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See Item C1 on the Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Occupation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1201 FIR 3501		11-2-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			306

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
º ' "	º ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: ____ Stop: ____	15 Seconds
Actual Start: 11:40 Stop: 12:27	Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description:	Attached / Submitted Earlier
Visibility Obstruction Form:	Attached / Submitted Earlier
Photographs of Station:	Attached / Submitted Earlier
Pencil Rubbing:	Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station NOAA Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Star FCM U.S.G.S.		11-2-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			306

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 2:00 Stop: 2:34

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters

Vehicle Parked ___ Meters
___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: ___

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
CP-1138 FND 3501

Station PID, if any:

Date (UTC): 11-2-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 306

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 3:07 Stop: 3:46

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked ___ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10°? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: U W

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) cp 1250		Station PID, if any:	Date (UTC): 11/02/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1250	Day of Year (Julian): 306
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address Wright@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:34 Stop: 10:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters

_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form for Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log (NOAA)

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1204		11/2/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1204	306

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright IV
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 10:35 Stop: 11:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Occupation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Y555		11/2/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			306

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E Wright
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			Wright @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 11:57 Stop: 12:27	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220337267	S/N: SS07A02450	S/N: 12368787
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description:	Attached / Submitted Earlier
Visibility Obstruction Form:	Attached / Submitted Earlier
Photographs of Station:	Attached / Submitted Earlier
Pencil Rubbing:	Attached / Submitted Earlier

Log Checked By: UD

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station NOAA Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1137		11/2/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1137	306

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright IV
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ____ Stop: ____
Actual Start: 14:04 Stop: 14:34

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station NOAA Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
G489		11/2/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			306

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E Wright IV
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 15:16 Stop: 15:46

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10°? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Occupation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
K413		11/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			307

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E Wright
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:54 Stop: 10:24

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10°? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Occupation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1197		11/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1197	307

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E Wright IV
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:56 Stop: 11:38

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1197		11/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1197	307

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright IV
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address Wright@GCTengineering.com

Observation Session Times (UTC): Schedule Start: ____ Stop: ____ Actual Start: 11:41 Stop: 12:16

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220337267	S/N: SS07A02450	S/N: 12368787
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: ____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1145		11/3/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1145 / Day of Year (Julian): 307
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright IV
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:43 Stop: 13:13

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220337267	S/N: SS07A02450	S/N: 12368787
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before session begins: Measure and record both Meters and Feet		Before session ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP-1234 FND 3501		11-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			307

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:45 Stop: 10:24

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1234 FNED 3501		11-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			307

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: ____ Stop: ____ Actual Start: 10:45 Stop: 11:22

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LJW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station NOAA Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1241 FNAD 3501		11-3-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 307
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:46 Stop: 12:16

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before session begins: Measure and record both Meters and Feet		Before session ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station (NGS) Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1146 FND 3501		11-3-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 307
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:38 Stop: 1:13

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LLO

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GP 1057		11-09-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Shawn Noles
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:06 am Stop: 10:30

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0 m	6.562	2.0 m	6.562 ft
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ~~6.56~~ 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1205		11-09-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Shawn Noles
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 11:30am Stop: 12:04
Actual Start: 11:10am Stop: 12:08

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FL GPS 69		11-09-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Shawn Noles

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: 2:06

Actual Start: 12:44pm Stop: 2:10

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1199

Station PID, if any:

Date (UTC): 11-09-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Shawn Wiles

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: 4:25

Actual Start: 350pm Stop: 4:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1056

Station PID, if any:

Date (UTC): 11·08·07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JAMES McKENEY

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:06 Stop: 10:27

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
~~Camcorder Battery~~ / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (~~Y~~/N) Circle
Antenna plumb after session? (~~Y~~/N) Yes or No
Antenna oriented to true north? (~~Y~~/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10º? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WD

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1237

Station PID, if any:

Date (UTC): 11-09-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: James McKelvey

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 11:17 Stop: 12:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble

Mdl: R8 Model 2

P/N: 60158-66

S/N: 4629119319

Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble

Mdl: TSC2

P/N: ST1-TY5GMDB

S/N: SS27A19157

Firm Vers:

GPS Antenna

Mfr: Trimble

Mdl: R8 Model 2

P/N: 60158-66

S/N: 4629119319

Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle

Antenna plumb after session? (Y / N) Yes or No

Antenna oriented to true north? (Y / N) -If no,

Weather observed at antenna ht. (Y / N) explain

Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,

Eccentric occupation (>0.5 mm) (Y / N) describe.

Any obstructions above 10°? (Y / N) Use

Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DLJ

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1202

Station PID, if any:

Date (UTC): 11-09-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: James McKelvey

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:35 Stop: 14:06

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One: (Camcorder Battery) / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UL

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1236

Station PID, if any:

Date (UTC): 11·09·07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: James McKelvey

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:58 Stop: 16:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One: (Camcorder Battery) 12V DC 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (~~Y~~ / N) Circle
Antenna plumb after session? (~~Y~~ / N) Yes or No
Antenna oriented to true north? (~~Y~~ / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tripbrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WJ

GPS Static Unit No. NEI-4095

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1207		11/09/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1207 / Day of Year (Julian): 313
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William F Dwight IV

Phone #(850) 678-5141

e-mail address: Dwight @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:47 Stop: 10:27

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **50157-00**
S/N: **0220294095**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: VW

GPS Static Unit No. NEI-4095 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1208
Station PID, if any:
Date (UTC): 11/09/07

General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 1208
Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: William E Dright IV
Phone #(850) 678-5141
e-mail address: Dright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Mar Stop:
Actual Start: 10:45 Stop: 12:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220294095
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WD

GPS Static Unit No. NEI-4095 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 10S2		11/09/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		10S2	313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William F Wright IV
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address Wright@GCTengineering.com

Observation Session Times (UTC): Schedule Start: ____ Stop: ____ Actual Start: 15:18 Stop: 16:32

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220294095	S/N: SS07A02450	S/N: 12368787
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1057		11/09/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #**(850) 678-5141**

e-mail address GASPARIAN **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:05 Stop: 10:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One: ~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1205		11/09/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #**(850) 678-5141**

e-mail address GASPARIANV @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:10 Stop: 12:06

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One: ~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FLGPS 69		11/09/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	GREGORY GASPARIAN
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			GASPARIAN @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:43 Stop: 2:08

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:
Circle One: (Camcorder Battery) / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tripach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 119		11/09/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		10

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.

Operator Full Name: GREGORY GASPARIAN

Phone #(850) 678-5141

e-mail address GASPARJAN @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 3:51 Stop: 4:29

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:
Circle One: ~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WS

GPS Static Unit No. NEI-3412

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1208		11/09/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1208	313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William F. Wright IV
		GEOID99 Geoid Height:	Phone #(850) 678-8141
		Meters	e-mail address
			Wright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 9:02 Stop: 10:32

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220293412
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:_____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3412

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1212

Station PID, if any:

Date (UTC): 11/09/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1212

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 11:28 Stop: 12:04

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220293412
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3412

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1056		11/09/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1056	313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:07 Stop: 14:07

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220293412
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3412

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP 1053			11/09/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1053	Day of Year (Julian): 313
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:08 Stop: 16:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **50157-00**
S/N: **0220293412**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N Circle
Antenna plumb after session? (Y) N Yes or No
Antenna oriented to true north? (Y) N -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7280

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1203		11/09/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1203	313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): o ' "

NAD83 Longitude (W): o ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:22 Stop: 10:39

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **50157-00**
S/N: **0220357280**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7280 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 10SS

Station PID, if any:

Date (UTC): 11/09/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 10SS

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:23 Stop: 14:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220357280
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7280

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Y SSS		11/09/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 313
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: Meters NAVD88 Orthometric Height: Meters GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: William F. Wright IV
Phone #(850) 678-5141
e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 15:54 Stop: 16:25

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220357280
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:_____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WS

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1205		10-9-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:44 Stop: 10:27

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CD1250

Station PID, if any:

Date (UTC): 10-9-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.):

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:15 Stop: 12:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1053		10-9-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1:36 Stop: 2:06

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station NOAA Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FDEM-57		11-9-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Hornsby

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 09:57 Stop: 10:27

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119338
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19144
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119338
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)	2.0 m	6.562	2.0 m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
V486		11-9-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			313

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	S. Horwsby
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 10:55 Stop: 12:04

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8 Model 2**	Mdl: **TSC2**	Mdl: **R8 Model 2**
P/N: **60158-66**	P/N: **ST1-TY5GMDB**	P/N: **60158-66**
S/N: **4629119338**	S/N: **SS27A19144**	S/N: **4629119338**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10°? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1054

Station PID, if any:

Date (UTC): 11-9-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 313

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.):

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Horusby

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 13:16 Stop: 14:04

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No.1

Gustin, Cothern, & Tucker, Inc.

GPS Station NOAA Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1250		11-09-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 313
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN): / Session ID (A,B,C etc.):

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Hopsby

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:08 Stop: 16:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119338**
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10°? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before session begins: Measure and record both Meters and Feet		Before session ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)	2.0m	6.562	2.0m	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
D 537		11/14/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			318

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: DAVID HAM

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 0824 Stop: 0900

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220346379
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00013575
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60100962
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1050		11-14-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			318

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: JAMES McELVEY
Phone #**(850) 678-5141**
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:55 Stop: 10:11

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One: Camcorder Battery / (12V DC) / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10°? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JJ

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FDEM-PSS		11/24/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			318

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	_____ Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		_____ Meters	GREGORY GASPARIAN
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		_____ Meters	e-mail address
			GASPARIAN @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:35 Stop: 10:30

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / (12V DC) / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1051		11/14/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			318

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright IV
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address Wright @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____. Actual Start: 8:03 Stop: 10:57.

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees.

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07.

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____.

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1204		11/15/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1204	319

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #**(850) 678-5141**

e-mail address Wright@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 7:44 Stop: 8:46

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1202		11/15/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1202	319

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:36 Stop: 10:11

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FDEM-S7		11/15/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			319

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:05 Stop: 12:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): BRIDGE 2

Station PID, if any:

Date (UTC): 11/15/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 319

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 0643 Stop: 0753

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1250		11/15/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			319

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	DAVID HAM
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 0838 Stop: 0910

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSCe**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **45185-20**	P/N: **41249-00**
S/N: **0220346379**	S/N: **00013575**	S/N: **60100962**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1054		11/15/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			319

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:
° ' "	° ' "	Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: DAVID HAM
Phone #(850) 678-5141
e-mail address: HAM @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ____ Stop: ____
Actual Start: 10.00 Stop: 1112

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSCe	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: 45185-20	P/N: 41249-00
S/N: 0220346379	S/N: 00013575	S/N: 60100962
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1212		11/15/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			319

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #**(850) 678-5141**

e-mail address GASPARIAN **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:00 Stop: 8:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / (12V DC) / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196 — 1 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FL GPS 69		11/15/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			319

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: GREGORY GASPARIAN

Phone #**(850) 678-5141**

e-mail address GASPARIAN@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:28 Stop: 12:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / (12V DC) / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) / N — Circle
Antenna plumb after session? (Y) / N — Yes or No
Antenna oriented to true north? (Y / N) — If no,
Weather observed at antenna ht. (Y / N) — explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) — If yes,
Eccentric occupation (>0.5 mm) (Y / N) — describe.
Any obstructions above 10°? (Y / N) — Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1237

Station PID, if any:

Date (UTC): 11·15·07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 319

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JAMES McKELVEY

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:14 Stop: 8:58

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery (12V DC)
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.905	1.8	5.905
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WJ

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1205		11-15-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			319

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	JAMES McKENNEY
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:12 Stop: 10:31

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220363683**	S/N: **5508A03028**	S/N: **12635782**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / (12V DC) 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10°? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.905	1.8	5.905
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
K 523		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E Wright IV
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			Wright @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 11:21 Stop: 12:20	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118310	S/N: SS27A03028	S/N: 4627118310
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B**; **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1233		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1233	331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @**GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:05 Stop: 13:38

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1176		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1176	331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright IV.
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:19 Stop: 15:17

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 11/27/07

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: U W

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1172

Station PID, if any:

Date (UTC): 11/27/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1172

Day of Year (Julian): 331

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright IV.

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:30 Stop: 16:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	and Feet	Before sessions ends: Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: U W

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1078

Station PID, if any:

Date (UTC): 11-27-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 331

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Jeff Gustin

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:13 Stop: 13:38

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.06	6.82	2.06	6.82
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

TRIMBLE #5
R7 # 7265
GCT LESS #8

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1112

Station PID, if any:

Date (UTC): 11-27-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 331

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:14 Stop: 15:26

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1230		11-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:43 Stop: 16:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1180		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1180	331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JOSHUA WOOD

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:03 Stop: 1:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1179		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1179	331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JOSH WOOD

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 02:10 Stop: 3:18

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1176		10-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1176	331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Josh Wood
		GEOID99 Geoid Height:	Phone **#(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 3:37 Stop: 4:30

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **5700**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **40406-46**	P/N: **ST1-TY5GMDB**	P/N: **41249-00**
S/N: **0220262321**	S/N: **SS27A18921**	S/N: **60052064**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1179		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Hmm

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1104 Stop: 1335

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1231		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Hmm

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1425 Stop: 1520

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1231		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____@**GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start:_____ Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1175		11-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: JAMES McKENEY
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 15:33 Stop: 16:31

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Firm Ver:
Circle One: ~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19157
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (~~Y~~ / N) Circle
Antenna plumb after session? (~~Y~~ / N) Yes or No
Antenna oriented to true north? (~~Y~~ / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1233		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1233	331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:02 Stop: 13:36

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220288379
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1179		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1179	331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright III

Phone #(850) 678-5141

e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:08 Stop: 15:19

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220288379
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1175
Station PID, if any:
Date (UTC): 11/27/07
General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 1175
Day of Year (Julian): 331
Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: William E Wright IV
Phone #(850) 678-5141
e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 15:36 Stop: 16:30
Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 50157-00
S/N: 0220288379
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1182		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:55 Stop: 13:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.00	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.00	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1178		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address KWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:00 Stop: 15:10

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters

_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.00	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.00	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1174		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WACKER

Phone #**(850) 678-5141**

e-mail address WWACKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:55 Stop: 16:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.00	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)			2.00	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1179		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Christopher Sapp
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:50 Stop: 1:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	**Data Collector**	**GPS Antenna**
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118138**	S/N: **SS27A18719**	S/N: **4627118138**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height	**Before sessions begins:** Measure and record both **Meters** and **Feet**		**Before sessions ends:** Measure and record both **Meters** and **Feet**	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	**Time (UTC)**	**Dry Bulb Temp** Fahrenheit	Celsius	**Wet Bulb Temp** Fahrenheit	Celsius	**Relative % Humidity**	**Atmospheric Pressure** Inches Hg	Millibars	**Weather Codes**
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1231		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 2:25 Stop: 3:19

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: U W

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1231		11/27/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Saff

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 3:30 Stop: 4:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) [illegible] CP 1173		Station PID, if any:	Date (UTC): 11-27-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 331
Project Name: Lake Okeechobee Area LiDAR	Project Number: **E07066**	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 331 Stop: 1830

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1177		11-27-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			331

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 2:32 Stop: 3:14

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) Land V&D 3501 CP1181		Station PID, if any:	Date (UTC): 11-27-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 331
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:58 Stop: 1:[illegible]

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1170		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1170	332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JASON TUCKER

Phone #**(850) 678-5141**

e-mail address JTUCKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 06:52 Stop: 08:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters
Vehicle Parked 70 Meters W (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 124A		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JAMES McKELVEY

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: 8 Stop: _____

Actual Start: 8:28 Stop: 9:41

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
~~Camcorder Battery~~ 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (~~Y~~ / N) Circle
Antenna plumb after session? (~~Y~~ / N) Yes or No
Antenna oriented to true north? (~~Y~~ / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LV

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID. if any:	Date (UTC):
CP 1168		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JAMES McELVEY

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:06 Stop: 11:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One: (Camcorder Battery) 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (~~Y~~ / N) Circle
Antenna plumb after session? (~~Y~~ / N) Yes or No
Antenna oriented to true north? (~~Y~~ / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1162
Station PID, if any:
Date (UTC): 11-28-07
General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID:
Day of Year (Julian): 332
Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: JAMES McKELVEY
Phone #(850) 678-5141
e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 11:39 Stop: 12:42
Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19157
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1093		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: _____ Meters	Operator Full Name: James McKelvey
		GEOID99 Geoid Height: _____ Meters	Phone #(850) 678-5141
			e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:24 Stop: 14:04

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:
Circle One: ~~Camcorder Battery~~ / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / ~~N~~) Circle
Antenna plumb after session? (~~Y~~ / N) Yes or No
Antenna oriented to true north? (~~Y~~ / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1100		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JAMES McELVEY

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:01 Stop: 15:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1103		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JAMES McKENNEY

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:29 Stop: 18:22

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters

_____ (Direction) from Antenna

Antenna plumb before session? (~~Y~~ / N) Circle
Antenna plumb after session? (~~Y~~ / ~~N~~) Yes or No
Antenna oriented to true north? (~~Y~~ / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP1172			11/28/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 332
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: ____ Meters
NAVD88 Orthometric Height: ____ Meters
GEOID99 Geoid Height: ____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: DAVID HAM
Phone #(850) 678-5141
e-mail address: ____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ____ Stop: ____
Actual Start: 0657 Stop: 0806

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSCe	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: 45185-20	P/N: 41249-00
S/N: 0220346379	S/N: 00013575	S/N: 60100962
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1168

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 0821 Stop: 0940

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1164		11/28/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 0956 Stop: 1120

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1093		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	DAVID HAM
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1206 Stop: 1240

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSCe**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **45185-20**	P/N: **41249-00**
S/N: **0220346379**	S/N: **00013575**	S/N: **60100962**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1095		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAWI

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start:_____ Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP 1096			11/27/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 332
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAMM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start:_____ Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1096

Station PID, if any:

Date (UTC): 11/27/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Flynn

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1601 Stop: 1820

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1229

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1229

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): o ' "

NAD83 Longitude (W): o ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Josh Lyons

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 7:17 Stop: 8:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1229		10-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1229	332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JOSH WOOD

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:10 Stop: 9:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1166		10-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1116	332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:40 Stop: 11:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID. ddd = Julian Day. s = session. xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1092

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1092

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Josh Wood

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 12:00 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1098		10-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1098	332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Operator Full Name: Josh Wood

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 1:15 Stop: 2:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1099		10-28-07

General Location:	Airport ID. if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1099	332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 2:16 Stop: _____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no.
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID. ddd = Julian Day. s = session. xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1104

Station PID, if any:

Date (UTC): 10-28-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1104

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 5:47 Stop: 6:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1230

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Jeff Gutierrez

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 6:50 Stop: 8:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1169

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:23 Stop: 9:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1165

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:00 Stop: 11:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: U W

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1091A

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 12:03 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1226		Station PID, if any:	Date (UTC): 11/28/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 332
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): E

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Jd [signature]

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:___ Stop:___

Actual Start: 13:32 Stop: 14:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220337267	S/N: SS07A02450	S/N: 12368787
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N)
Antenna plumb after session? (Y / N)
Antenna oriented to true north? (Y / N)
Weather observed at antenna ht. (Y / N)
Antenna ground plane used? (Y / N)
Circle Yes or No -If no, explain

Antenna radome used? (Y / N)
Eccentric occupation (>0.5 mm) (Y / N)
Any obstructions above 10º? (Y / N)
Radio interference source nearby? (Y / N)
If yes, describe. Use Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:___.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1011

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Jil Butler

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:15 Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1228

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 17:09 Stop: 18:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FLGPS 57		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	WAYNE WALKER
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 07:07 Stop: 08:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): FLGPS 57

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): 1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 08:37 Stop: 09:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
A 524		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:00 Stop: 11:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
A 524		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		3

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:35 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W V

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) C 519

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): 4

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:18 Stop: 14:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FISH		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		5

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____.

Actual Start: 14:20 Stop: _____.

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07.

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) K 518

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): 6

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:08 Stop: 18:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W V

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1172		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 6:57 Stop: 8:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/28/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1168		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:21 Stop: 9:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/28/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1164

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:56 Stop: 11:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/28/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1093

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:06 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/28/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1095

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 1:04 Stop: 2:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/28/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1096
Station PID, if any:
Date (UTC): 11/28/07
General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID:
Day of Year (Julian): 332
Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Christopher Sapp
Phone #**(850) 678-5141**
e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 2:28 Stop: 3:50
Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 10/28/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1096

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Saff

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 4:00 Stop: 6:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y) / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/28/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1228		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1228	332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 7:27 Stop: 8:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1103		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1163	332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:27 Stop: 9:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters

_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1227

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1227

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:32 Stop: 11:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1163

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1163

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #**(850) 678-5141**

e-mail address: Wright **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:37 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: 11/27/07

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): FISH

Station PID, if any:

Date (UTC): 11/28/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 332

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 13:07 Stop: 14:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1097		11/28/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1097 / Day of Year (Julian): 332
Project Name: Lake Okeechobee Area LiDAR	Project Number: **E07066**	Station Serial # (SSN): / Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:20 Stop: 15:53

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1109		11/28/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:53 Stop: 18:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/29/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1171		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Steven Chad Evans
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 6:55 Stop: 8:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description:	Attached / Submitted Earlier
Visibility Obstruction Form:	Attached / Submitted Earlier
Photographs of Station:	Attached / Submitted Earlier
Pencil Rubbing:	Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
SAC 5501 CP 1226		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Steven Chad Evans
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: Stop:	15 Seconds
Actual Start: 9:08 Stop: 21:22	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session?	(Y/N)	Circle Yes or No -If no, explain
Antenna plumb after session?	(Y/N)	
Antenna oriented to true north?	(Y/N)	
Weather observed at antenna ht.	(Y/N)	
Antenna ground plane used?	(Y/N)	
Antenna radome used?	(Y/N)	If yes, describe. Use Vis. Form
Eccentric occupation (>0.5 mm)	(Y/N)	
Any obstructions above 10°?	(Y/N)	
Radio interference source nearby?	(Y/N)	

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) FIR 3501 CP1225		Station PID, if any:	Date (UTC): 11-28-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 332
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 10 47 Stop: 11:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N)
Antenna plumb after session? (Y / N)
Antenna oriented to true north? (Y / N)
Weather observed at antenna ht. (Y / N)
Antenna ground plane used? (Y / N)
Circle Yes or No -If no, explain

Antenna radome used? (Y / N)
Eccentric occupation (>0.5 mm) (Y / N)
Any obstructions above 10°? (Y / N)
Radio interference source nearby? (Y / N)
If yes, describe. Use Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:39 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before session begins: Measure and record both Meters and Feet		Before session ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
[illegible]		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Steven Chad Evans
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 1:02 Stop: 2:05	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description:	Attached / Submitted Earlier
Visibility Obstruction Form:	Attached / Submitted Earlier
Photographs of Station:	Attached / Submitted Earlier
Pencil Rubbing:	Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FB 3501 CB 1226		11-28-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			332

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		F

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		_____ Meters	Steven Chad Evans
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		_____ Meters	e-mail address
			_____**@GCTengineering.com**

Observation Session Times (UTC):	Epoch Interval:
Schedule Start:_____ Stop:_____	15 Seconds
Actual Start: 2355 Stop: 2102	Elevation Mask: 10 Degrees

GPS Receiver	**Data Collector**	**GPS Antenna**
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220363683**	S/N: **5508A03028**	S/N: **12635782**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		After sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description:	Attached / Submitted Earlier
Visibility Obstruction Form:	Attached / Submitted Earlier
Photographs of Station:	Attached / Submitted Earlier
Pencil Rubbing:	Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
			11-28-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 332
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 0358 Stop: 2120

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.3m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.

Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1107		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1107	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:15 Stop: 10:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1113		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1113	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Josh Wood
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:27 Stop: 12:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1113

Station PID, if any:

Date (UTC): 10-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1113

Day of Year (Julian): 333

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:25 Stop: 2:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one.
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1117		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1117	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		1

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 2:30 Stop: 3:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 40406-46	P/N: ST1-TY5GMDB	P/N: 41249-00
S/N: 0220262321	S/N: SS27A18921	S/N: 60052064
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1119		10-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1119	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 4:05 Stop: 5:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID. ddd = Julian Day. s = session. xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1108		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ___ º ___ ‘ ___ “

NAD83 Longitude (W): ___ º ___ ‘ ___ “

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 0956 Stop: 1026

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1108		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Hmm

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____.

Actual Start: 1035 Stop: 1200.

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07.

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1114		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1334 Stop: 1405

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1187		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Hamm

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____.

Actual Start: 1509 Stop: 1528.

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07.

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6562	2.0	6562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1118		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Operator Full Name: David Ham

Phone #(850) 678-5141

e-mail address Ham @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 1619 Stop: 1723	Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220346379
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00013575
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60100962
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
A 518		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 07:38 Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) C359 NGS Brass disk		Station PID, if any:	Date (UTC): 11-29-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 333
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:52 Stop: [illegible]

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8 Model 2	Mdl: TSC2	Mdl: R8 Model 2
P/N: 60158-66	P/N: ST1-TY5GMDB	P/N: 60158-66
S/N: 4629119319	S/N: SS27A19157	S/N: 4629119319
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before session begins: Measure and record both Meters and Feet		After session ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of [illegible] weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1233		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1233	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:25 Stop: 14:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1233		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1233	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:28 Stop: 15:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1185		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1185	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E Wright IV
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			Wright @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: ____ Stop: ____	15 Seconds
Actual Start: 16:37 Stop: 17:20	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8 Model 2	Mdl: TSC2	Mdl: R8 Model 2
P/N: 60158-66	P/N: ST1-TY5GMDB	P/N: 60158-66
S/N: 4629119319	S/N: SS27A19157	S/N: 4629119319
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) B 529

Station PID, if any:

Date (UTC): 11/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 333

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): 0

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 08:13 Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1110		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		1

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: WAYNE WALKER
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:28 Stop: _____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1116		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:29 Stop: 14:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1183		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		3

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:55 Stop: 15:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1120		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		4

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:25 Stop: 17:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CF 1104		11/29/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 333
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name:
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:07 Stop: 9:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220337267	S/N: SS07A02450	S/N: 12368787
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1109

Station PID, if any:

Date (UTC): 11/29/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 333

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:30 Stop: 12:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1117		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name:
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:50 Stop: 14:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1182		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name:
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:40 Stop: 15:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.560	2.0	6.560
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1122		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 16:04 Stop: 17:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1109		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:55 Stop: 10:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	**Data Collector**	**GPS Antenna**
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118138**	S/N: **SS27A18719**	S/N: **4627118138**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/29/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	**Time (UTC)**	**Dry Bulb Temp** Fahrenheit	Celsius	**Wet Bulb Temp** Fahrenheit	Celsius	**Relative % Humidity**	**Atmospheric Pressure** Inches Hg	Millibars	**Weather Codes**
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1109		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Supp

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:35 Stop: 12:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/29/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1114		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1:34 Stop: 2:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/29/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1187		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Christopher Sapp
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 3:09 Stop: 3:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118138**	S/N: **SS27A18719**	S/N: **4627118138**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/29/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1118		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: ' Stop: .

Actual Start: 4:19 Stop: 17:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y) / N	Circle
Antenna plumb after session?	(Y) / N	Yes or No
Antenna oriented to true north?	(Y) / N	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07 .

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/29/07 .

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1105		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1105	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV.

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:20 Stop: 9:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1111		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1111	333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:45 Stop: 12:01

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/27/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
C 358		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:23 Stop: 14:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1184		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		3

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address KWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:46 Stop: 15:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1003		11/29/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		4

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:38 Stop: 17:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07 .

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Local Control [illegible]		11-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:
° ' "	° ' "	Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:03 Stop: 9:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FCM AC1		11-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:29 Stop: 12:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: QW

Gustin, Cothern, & Tucker, Inc.

GPS Static Unit No. NEI-3683

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
FIR 3501 CP1186

Station PID, if any:

Date (UTC): 11-29-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 333

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 12:57 Stop: 19:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10°? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
NAD 3501 CP1118		11-29-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			333

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:33 Stop: 15:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Steel Rod in Okeechobee rock		11-29-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 333
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Tyler Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 16:31 Stop: 17:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0 m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1135		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: DAVID HAM
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address HAM@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 0756 Stop: 0835

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSCe**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **45185-20**	P/N: **41249-00**
S/N: **0220346379**	S/N: **00013575**	S/N: **60100962**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1133		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 0850 Stop: 0955

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1018		11/30/09

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: DAVID Ham
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: ____ Stop: ____	15 Seconds
Actual Start: 1056 Stop: 1130	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSCe**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **45185-20**	P/N: **41249-00**
S/N: **0220346379**	S/N: **00013575**	S/N: **60100962**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked ____Meters ____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	and Feet	Before sessions ends: Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B**; **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1014		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1145 Stop: 1241

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP102		11/30/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: DAVID Lamm
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1312 Stop: 1355

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1008		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Hamm

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1437 Stop: 1515

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6562	2.0	6562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DA

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1004		~~10~~ 11/30/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		G

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	DAVID HAM
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			HAM @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1537 Stop: 1620.

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220346379
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00013575
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60100962
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP100Z		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		H

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: DAVID HAM
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____.
Actual Start: 1630 Stop: 1730.

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07 .

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1134		Station PID, if any:	Date (UTC): 11/30/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 334
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Joe Butterworth

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 7:50 Stop: 8:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220337267	S/N: SS07A02450	S/N: 12368787
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N)
Antenna plumb after session? (Y / N)
Antenna oriented to true north? (Y / N)
Weather observed at antenna ht. (Y / N)
Antenna ground plane used? (Y / N)
Circle Yes or No -If no, explain

Antenna radome used? (Y / N)
Eccentric occupation (>0.5 mm) (Y / N)
Any obstructions above 10º? (Y / N)
Radio interference source nearby? (Y / N)
If yes, describe. Use Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1132		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: _____ Meters	Operator Full Name: [signature]
		GEOID99 Geoid Height: _____ Meters	Phone #**(850) 678-5141**
			e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 8:54 Stop: 9:55	Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) L 048

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:28 Stop: 11:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: ~~Fixed-Height Tripod~~ / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1128		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joe Butler

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 11:49 Stop: 12:40
Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1010		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:02 Stop: 13:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): GP 1007

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:34 Stop: 15:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1007

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:16 Stop: 16:22

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	(6.562)	2.0	(6.562)
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1124

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): H

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 16:48 Stop: 17:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: VV

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
EDN 6 25		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: WAYNE WALKER
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 07:59 Stop: 8:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) EDN 6 25

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): 1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 09:15 Stop: 09:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
R 543		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:50 Stop: 11:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1188		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		3

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:00 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
R 543		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		4

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	WAYNE WALKER
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:03 Stop: 13:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
C T2		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		S

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:34 Stop: 15:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CT2

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): 6

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:25 Stop: 16:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1004		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		7

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:57 Stop: 17:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): ~~CP1020~~ CP1021

Station PID, if any:

Date (UTC): 10-30-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1021

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: JOSH WOOD

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 7:30 Stop: 8:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WO

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1016

Station PID, if any:

Date (UTC): 11-30-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1016

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: ____ Meters

NAVD88 Orthometric Height: ____ Meters

GEOID99 Geoid Height: ____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address ____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ____ Stop: ____

Actual Start: 10:53 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked ____Meters
____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: ____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: ____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1016		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1016	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Woods

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:31 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1188		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1188	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____.

Actual Start: 1:04 Stop: 2:04.

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07.

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UD

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1126		10-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1126	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 2:15 Stop: 3:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CR 1124		10/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1124	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Operator Full Name: William E Wright IV.

Phone #(850) 678-5141

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 15:23 Stop: 16:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1122		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1122	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV.

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:55 Stop: 17:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1190

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1190

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 8.00 Stop: 8.35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19157
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 11/30/07.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1190		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1190	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV.

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:52 Stop: 9:59

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1131		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1131	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright II

Phone #**(850) 678-5141**

e-mail address: Wright **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:25 Stop: 11:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1129		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1129	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright IV.
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:48 Stop: 12:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19157
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1126		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1126	334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:54 Stop: 3:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WD

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
S 191 W		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III.

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:10 Stop: 15:15.

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07.

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): S 191 W

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:33 Stop: 16:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CB 1123

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1123

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): H

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:43 Stop: 7:36

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1135

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 7:55 Stop: 8:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1133		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:50 Stop: 9:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1018

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:55 Stop: 16:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: CC

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1014		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sall

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:45 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1012		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1:12 Stop: 13:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1008		11/30/07
General Location: Lake Okeechobee, Florida	Airport ID, if any: / Station 4-Character ID:	Day of Year (Julian): 334
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066 / Station Serial # (SSN):	Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 2:37 Stop: 3:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DH

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1004

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 3:26 Stop: 4:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1002

Station PID, if any:

Date (UTC): 11/30/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): H

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 4:30 Stop: 5:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1020		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	WAYNE WALKER
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 07:30 Stop: 8:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:_____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1020		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:58 Stop: 9:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: OW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1017		11/30/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:20 Stop: 10:43

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1127		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:07 Stop: 12:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1011

Station PID, if any:

Date (UTC): 11-30-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1:19 Stop: 1:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1011		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1:57 Stop: 3:27

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1006		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 3:47 Stop: 4:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1121		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 4:51 Stop: 5:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
	[illegible]			11-30-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 334
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 7:51 Stop: 3:[illegible]

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0 m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
FIRE 35 01 CD 11311

Station PID, if any:

Date (UTC): 12-30-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 334

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 9:00 Stop: 0:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0 m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back (Or Back Of Form) For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: CW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
[illegible]		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Shawn Chad Evans
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 1015 Stop: [illegible]	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle Yes or No -If no, explain
Antenna plumb after session?	(Y / N)	
Antenna oriented to true north?	(Y / N)	
Weather observed at antenna ht.	(Y / N)	
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes, describe.
Eccentric occupation (>0.5 mm)	(Y / N)	
Any obstructions above 10°?	(Y / N)	Use Vis. Form
Radio interference source nearby?	(Y / N)	

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
[illegible]		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Steven Chad Ewing
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 10:37 Stop: 11:30	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIK 3001 CP1015		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Steven Chad Evans
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 11:49 Stop: 15:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) FIR 3501 CP1013		Station PID, if any:	Date (UTC): 11-30-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 334
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): E

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 13:14 Stop: 13:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIK 3501 CP 1009		11-30-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			334

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:25 Stop: 15:15

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters
____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0 m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIR 3501 CP1005		11-30-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 334
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: ____ Meters
NAVD88 Orthometric Height: ____ Meters
GEOID99 Geoid Height: ____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address ____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ____ Stop: ____
Actual Start: 15:43 Stop: 16:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) Found nail & Tack 2001 CP1120		Station PID, if any:	Date (UTC): 11-30-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 334
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): H

NAD83 Latitude (N): ___° ___' ___"

NAD83 Longitude (W): ___° ___' ___"

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 16:39 Stop: 17:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0 m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Tide 1 Eyes [illegible]		12-1-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			335

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:18 Stop: 13:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Meters			Feet
A = Datum Point (Ground Mark) to Bottom of Mount (Notch)	20m			
B = Additional Offset to ARP (if any) Specify Adaptor, Spacer, etc.				
H = Antenna Height (A + B) H = Datum Point (Ground Mark) to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC): 12-1-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 335
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 17:58 Stop: 17:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSCe	Mdl: Zephyr Geodetic
P/N: 40406-46	P/N: 45185-20	P/N: 41249-00
S/N: 0220242196	S/N: 00049259	S/N: 12534174
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle Yes or No -If no, explain

Antenna plumb after session? (Y / N)

Antenna oriented to true north? (Y / N)

Weather observed at antenna ht. (Y / N)

Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes, describe. Use Vis. Form

Eccentric occupation (>0.5 mm) (Y / N)

Any obstructions above 10º? (Y / N)

Radio interference source nearby? (Y / N)

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Antenna Height

A = Datum Point to top of Tripod [illegible]	2.0m			
B = Additional [illegible]				
H = [illegible]				

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative Humidity	[illegible]	[illegible]	Weather Codes
Before									
Middle									
After									
Average of Readings									

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC)
CP 1254		12/01/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 335
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: GREGORY GASPARIAN
Phone #(850) 678-5141
e-mail address: GASPARIAN @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1:11 Stop: 1:46

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Circle One: Camcorder Battery / 12V DC / 110V-AC / Other

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any	Date (UTC)
CP 1253		12/01/07
General Location: Lake Okeechobee, Florida — Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 335
Project Name: Lake Okeechobee Area LiDAR — **Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: GREGORY GASPARIAN
Phone #(850) 678-5141
e-mail address: GASPARIAN@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 5:22 Stop: 5:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no.
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes.
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1254

Station PID, if any:

Date (UTC): 12-01-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 335

Project Name: Lake Okeechobee

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.):

Scanned 7/11

NAD83 Latitude (N): ° ' "

Ellipsoidal Height: _____ Meters

Orthometric Height: _____ Meters

Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Shawn Noles

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: [redacted]

Actual Start: 1:15 Stop: 1:47

10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220346379
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00013575
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60100962
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1209		12/01/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: / Day of Year (Julian): 335
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-6141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:35 Stop: 13:48

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters
____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1237

Station PID, if any:

Date (UTC): 12/01/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 335

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:24 Stop: 17:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

~~Fixed Height Tripod~~ Circle one: Slip-Leg Tripod Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1211

Station PID, if any:

Date (UTC): 12-1-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1211

Day of Year (Julian): 335

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.):

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:47 Stop: 1:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JL

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1208		12-1-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1208	335

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 3:21 Stop: 5:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1259		12/1/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1259	335

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:40 Stop: 13:56

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) if yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1257		12/01/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1257	335

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:30 Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
	[illegible]	CP 12[illegible]		12-1-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 335
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 13:09 Stop: 18:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
FB 9501 CBN			12-1-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 335
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: Meters NAVD88 Orthometric Height: Meters GEOID99 Geoid Height: Meters	Agency Full Name: Gustin, Cothern & Tucker, Inc. Operator Full Name: Steven Chad Evans Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:00 Stop: 19:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-3683 Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
	[illegible]			[illegible]
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 336
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address ___@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ___ Stop: ___
Actual Start: 9:20 Stop: [illegible]

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-3683

Gustin, Cothem, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
3501 CP		12-2-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			336

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Steven Chadwick
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 1120 Stop: 1140	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0 m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1064		12/2/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			336

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sall

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:46 Stop: 10:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/2/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1213		12/2/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			336

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sage

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:40 Stop: 11:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/2/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1243		12/02/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1243	336

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:30 Stop: 10:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1214		12/2/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1214 / Day of Year (Julian): 336
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:16 Stop: 11:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WS

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1210		12-2-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1210	336

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JOSH WOOD

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 9:04 Stop: 10:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: (Fixed-Height Tripod) / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1215

Station PID, if any:

Date (UTC): 12-2-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1215

Day of Year (Julian): 336

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.):

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:54 Stop: 11:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1240		12/02/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			336

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:02 Stop: 10:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) 1211

Station PID, if any:

Date (UTC): 12/02/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 336

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:50 Stop: 11:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1252		12/2/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1252	336

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address Wright **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:20 Stop: 10:19

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1260		12/2/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1260	336

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright IV

Phone #(850) 678-5141

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:04 Stop: 11:58

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 11/30/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1064		12-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1064	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:31 Stop: 11:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1196

Station PID, if any:

Date (UTC): 12-3-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1196

Day of Year (Julian): 337

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1:24 Stop: 3:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1048		12-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1048	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: _____ Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: _____ Meters	Phone #(850) 678-5141 e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 3:31 Stop: 4:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y) / N	Circle
Antenna plumb after session?	(Y) / N	Yes or No
Antenna oriented to true north?	(Y) / N	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(N) / N	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1238		12-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1238	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 5:46 Stop: 6:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1062		12-03-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Shawn Noles

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: 11:35

Actual Start: 10:45 Stop: 11

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-6379

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1194		12-03-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: S. Noles

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: 1:35 Stop: 305

Actual Start: ~~1:35~~ Stop: ~~306~~ 320

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12-01-07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
K 413		12-03-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Shawn Noles

Phone #**(850) 678-5141**

e-mail address Noles **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 16:49.
Actual Start: 3:55 Stop: 16:55.

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07.

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 12-01-07.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1246		12-03-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Shawn Noles
Phone #**(850) 678-5141**
e-mail address Noles **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: 6:15
Actual Start: 5:45 Stop: 6:16

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 12-01-07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.265	2.0	6.265
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1234		12-03-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Chris Sapp

Phone #**(850) 678-5141**

e-mail address Sapp **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: 305

Actual Start: 1155 Stop: 306

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1050		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 4:00 Stop: 4:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.2

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1195

Station PID, if any:

Date (UTC): 12/3/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 337

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Suff

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 5:20 Stop: 6:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1063		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:45 Stop: 4:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N — Circle
Antenna plumb after session? (Y) N — Yes or No
Antenna oriented to true north? (Y) N — -If no,
Weather observed at antenna ht. (Y / N) — explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) — If yes,
Eccentric occupation (>0.5 mm) (Y / N) — describe.
Any obstructions above 10°? (Y / N) — Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: GW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1197		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1197	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #**(850) 678-5141**

e-mail address: Wright **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:31 Stop: 15:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1049		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1049	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:11 Stop: 16:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1047		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1047	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #**(850) 678-5141**

e-mail address Wright **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 17:24 Stop: 18:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1091		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: WAYNE WALKER
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 08:03 Stop: 08:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1239		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:18 Stop: 15:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1239		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 15:35 Stop: 16:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1239		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		3

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:35 Stop: 16:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1239		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		3

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 17:05 Stop: 18:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1091A

Station PID, if any:

Date (UTC): 12/03/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 337

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:02 Stop: 8:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1060		12/03/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: _____

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:01 Stop: 11:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1198		12/03/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:20 Stop: 15:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): FDEM PS5

Station PID, if any:

Date (UTC): 12/03/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 337

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Joe Gutierrez

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: 16:45

Actual Start: 15:40 Stop: 16:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220337267
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: SS07A02450
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12368787
Cable Length ___ Meters

Vehicle Parked _____ Meters

_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
~~CB~~ CP 1046		12/03/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 17:30 Stop: 18:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220337267**	S/N: **SS07A02450**	S/N: **12368787**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: ~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Y 535		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @**GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:56 Stop: 11:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: 11/30/07

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1236		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1236	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:50 Stop: 15:24

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CB 1235		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1235	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright III
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141** e-mail address Wright @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____ Actual Start: 15.48 Stop: 16.45

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1249		12/3/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1249	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright IV
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141** e-mail address Wright@GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____ Actual Start: 17:44 Stop: 18:15

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
[illegible] CP1063		12-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:29 Stop: 11:39

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) FIR 3501 [illegible]		Station PID, if any:	Date (UTC): 11-3-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 337
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Jason Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:15 Stop: 15:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N)
Antenna plumb after session? (Y / N)
Antenna oriented to true north? (Y / N)
Weather observed at antenna ht. (Y / N)
Antenna ground plane used? (Y / N)
Circle Yes or No - If no, explain

Antenna radome used? (Y / N)
Eccentric occupation (>0.5 mm) (Y / N)
Any obstructions above 10º? (Y / N)
Radio interference source nearby? (Y / N)
If yes, describe. Use Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683 Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) D 5[illegible] ±C[illegible]/Brass Disk		Station PID, if any:	Date (UTC): 12-3-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 337
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: ____ Meters NAVD88 Orthometric Height: ____ Meters GEOID99 Geoid Height: ____ Meters	Agency Full Name: Gustin, Cothern & Tucker, Inc. Operator Full Name: Steven Chad Evans Phone #(850) 678-5141 e-mail address ____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ____ Stop: ____
Actual Start: 15:39 Stop: 16:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: ____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIR 3501 CP1048		12-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 17:07 Stop: 18:15

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before session begins: Measure and record both Meters and Feet		Before session ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CR 1042		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1042	338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:10 Stop: 9:38

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CB 1040		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1040	338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV.

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:30 Stop: 11:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07 .

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: 12/3/07.

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): B548
Station PID, if any:
Date (UTC): 12/4/01
General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID:
Day of Year (Julian): 338
Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: William E Wright IV
Phone #(850) 678-5141
e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 11:36 Stop: 12:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP1032			12/4/07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1032	Day of Year (Julian): 338
Project Name: Lake Okeechobee Area LiDAR	Project Number: **E07066**	Station Serial # (SSN):	Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-8141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:10 Stop: 15:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	**Data Collector**	**GPS Antenna**
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1036		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 0846 Stop: 0920

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1036		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: _____ Meters	Operator Full Name: DAVID Hamm
		GEOID99 Geoid Height: _____ Meters	Phone #**(850) 678-5141**
			e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 0921 Stop: 1119

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1036		12/4/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Hamm

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1127 Stop: 1250

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1246		12/4/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1418 Stop: 1500

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
MF 41		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 08:15 Stop: 10:18

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
MF 41		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:18 Stop: 11:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WS

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FLGPS 67		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:39 Stop: 12:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length 3 Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) FLGPS 67

Station PID, if any:

Date (UTC): 12/4/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 338

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): 3

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: WAYNE WALKER

Phone #(850) 678-5141

e-mail address: WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:25 Stop: 15:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1046		12/04/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: [illegible]
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 8:32 Stop: 9:20	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220337267**	S/N: **SS07A02450**	S/N: **12368787**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1041		12/04/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern, & Tucker, Inc.**

Operator Full Name: JOE BUTLER DAVIS

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:26 Stop: 11:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
~~Fixed-Height Tripod~~ Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1246		12/04/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JOE BUTERBAUGH

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:15 Stop: 12:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1248		12/04/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JOE BUTERBAUGH

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:22 Stop: 15:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1238		12-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1238	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:07 Stop: 9:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1042		12-3-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: ____ Stop: ____
Actual Start: 9:57 Stop: 11:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1033		12-4-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1033	337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:50 Stop: 12:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1029		12-4-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			337

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1:26 Stop: 3:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1045		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sarp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:46 Stop: 9:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
(Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/4/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1039		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:55 Stop: 11:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/4/07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1035		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:47 Stop: 12:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/4/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1031

Station PID, if any:

Date (UTC): 12/4/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 338

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1:12 Stop: 3:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/4/07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1044		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1044	338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright III

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:24 Stop: _____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 12/3/07

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1037		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1037	338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Shawn Noles

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:09 Stop: 11:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1037

Station PID, if any:

Date (UTC): 12/4/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1037

Day of Year (Julian): 338

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Shawn Noles

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:07 Stop: 12:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WC

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1033		12/4/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1033	338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:06 Stop: 15:08

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/3/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
HR 3501 CP1045		12-4-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: ____ Stop: ____	15 Seconds
Actual Start: 8:08 Stop: 9:20	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220363683**	S/N: **5508A03028**	S/N: **12635782**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked ____ Meters ____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: CWS

GPS Static Unit No. NEI-3683 Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) Nail & Disk 3501 CP1038		Station PID, if any:	Date (UTC): 12-4-09
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 339
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: Zeven Chad Evans
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:09 Stop: 11:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
[illegible]		12-4-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone **#(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:06 Stop: 12:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220363683**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **5508A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12635782**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before session begins: Measure and record both Meters and Feet		Before session ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form V for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description:	Attached / Submitted Earlier
Visibility Obstruction Form:	Attached / Submitted Earlier
Photographs of Station:	Attached / Submitted Earlier
Pencil Rubbing:	Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
FIR 3501 CP 1030		12-4-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Steven Chad Evans
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 13:37 Stop: 15:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R7**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **50157-00**	P/N: **ST1-TY5GADB**	P/N: **41249-00**
S/N: **0220363683**	S/N: **5508A03028**	S/N: **12635782**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1239		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address HAM **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 0802 Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07 .

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0 ~~6.562~~	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-6379 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1025		

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID Hamm

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1152 Stop: 1225

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	and Feet	Before sessions ends: Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1025		12/05/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: DAVID HAM

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1418 Stop: 1505

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220346379**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00013575**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60100962**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6562	2.0	6562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1026		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: Christopher Sapp
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:02 Stop: 9:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19157
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119319
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: 12/5/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1026		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:40 Stop: 12:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y) / N)	Circle
Antenna plumb after session?	(Y) / N)	Yes or No
Antenna oriented to true north?	(Y) / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/5/07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1136		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Christopher Sapp

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 2:00 Stop: 1:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: 12/5/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
STHR		12-5-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 14:19 Stop: 15:05	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8 Model 2	Mdl: TSC2	Mdl: R8 Model 2
P/N: 60158-66	P/N: ST1-TY5GMDB	P/N: 60158-66
S/N: 4629119319	S/N: SS27A19157	S/N: 4629119319
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description:	Attached / Submitted Earlier
Visibility Obstruction Form:	Attached / Submitted Earlier
Photographs of Station:	Attached / Submitted Earlier
Pencil Rubbing:	Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1028		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1028	339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #(850) 678-5141

e-mail address: Wright@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:31 Stop: 9:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 12/5/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1206		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1206	339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright III

Phone #**(850) 678-5141**

e-mail address Wright @**GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:51 Stop: 12:26

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: 12/5/07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1023

Station PID, if any:

Date (UTC): 12/5/07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1023

Day of Year (Julian): 339

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:57 Stop: 1:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/5/07

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1248		12/05/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joe Butterbaugh

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ~~8:00~~ Stop: _____

Actual Start: 8:01 Stop: 9:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-7267

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1245		12/05/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: JE BUTTERBAUGH
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:30 Stop: 12:25

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-7267 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1245		12/05/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: JOE BUTERBAUGH

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:26 Stop: 15:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R7**
P/N: **50157-00**
S/N: **0220337267**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GADB**
S/N: **SS07A02450**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12368787**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	and Feet	Before sessions ends: Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
H 547		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		O

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: WAYNE WALKER
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 08:20 Stop: 9:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)			2.000	6562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1137		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: WAYNE WALKER

Phone #**(850) 678-5141**

e-mail address WWALKER @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:14 Stop: 12:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
C 547		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
26 º 59 ' 10 "	80 º 24 ' 57 "	_____ Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		_____ Meters	WAYNE WALKER
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		_____ Meters	e-mail address
			WWALKER @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:27 Stop: _____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length 3 Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)			2.000	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)			2.000	6.562

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1194		12-5-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1194	338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: Josh Wood
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____
Actual Start: 8:01 Stop: 9:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **5700**	Mdl: **TSC2**	Mdl: **Zephyr Geodetic**
P/N: **40406-46**	P/N: **ST1-TY5GMDB**	P/N: **41249-00**
S/N: **0220262321**	S/N: **SS27A18921**	S/N: **60052064**
Firm Ver: **1.23**	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: (Fixed-Height Tripod) Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: VLS

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1126		12-5-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1126	338

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Josh Wood

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: _____ Stop: 12:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CR 1029		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1029	339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright III
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address Wright @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____
Actual Start: 8:23 Stop: 9:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 12/5/07

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1192		12/05/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1192	339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William F Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:01 Stop: 12:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: 12/05/07

Antenna Height

	Before sessions begins: Meters	and Feet	Before sessions ends: Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1024		12/5/07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1024	339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:17 Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters

_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: 12/5/07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
[illegible]		12-5-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			339

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Steven Chad Evans
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:57 Stop: 9:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R7
P/N: 50157-00
S/N: 0220363683
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GADB
S/N: 5508A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12635782
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683 Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) FIR 3891 CB 1191		Station PID, if any:	Date (UTC): 12-5-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 339
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:44 Stop: [illegible]

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N)
Antenna plumb after session? (Y / N)
Antenna oriented to true north? (Y / N)
Weather observed at antenna ht. (Y / N)
Antenna ground plane used? (Y / N)
Circle Yes or No -If no, explain

Antenna radome used? (Y / N)
Eccentric occupation (>0.5 mm) (Y / N)
Any obstructions above 10º? (Y / N)
Radio interference source nearby? (Y / N)
If yes, describe. Use Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-3683

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
[illegible]	[illegible]		12-5-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 339
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: _____ Meters NAVD88 Orthometric Height: _____ Meters GEOID99 Geoid Height: _____ Meters	Agency Full Name: **Gustin, Cothern & Tucker, Inc.** Operator Full Name: Jolen Chad Evans Phone #(850) 678-5141 e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:33 Stop: 15:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R7	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 50157-00	P/N: ST1-TY5GADB	P/N: 41249-00
S/N: 0220363683	S/N: 5508A03028	S/N: 12635782
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m			
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1302		12-06-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			340

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:10 Stop: 8:48

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before session: Measure and record from Meters and Feet		After session: Measure and record from Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562		
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Heat Index / Wind Chill
Before									
Middle									
After									
Average of Readings									

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1301		Station PID, if any:	Date (UTC): 12-6-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 340
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:59 Stop: 9:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height	[illegible]		[illegible]	
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562		
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									[illegible]

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: VW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 2005		12-06-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			340

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:56 Stop: 11:11

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Feet	Meters		
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562		
B = Additional Offset to ARP, if any (Tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative Humidity	Pressure Inches	Pressure Millibars
Before								
Middle								
After								
Average of Readings								

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DLW

GPS Static Unit No. NEI-8138 Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 2005		Station PID, if any:	Date (UTC): 12-06-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 340
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): D

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 11:12 Stop: 11:59

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: ___

Antenna Height	Before session begins Measure and record both Meters and Feet		[illegible]	
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562		
B = Additional Offset to ARP if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	[illegible] Inches Hg	[illegible]	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of [illegible]

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 2009		Station PID, if any:	Date (UTC): 12-06-07
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 340
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): E

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Steven Chad Evans

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:00 Stop: 13:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562		
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman

Model: Kestrel 4000

Part Number: NK 0840

Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back of form for weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 | Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 2009		Station PID, if any:	Date (UTC): 12-6-07
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian): 340
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): F

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: Steven Chad Evans
Phone #(850) 678-5141
e-mail address ___@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ___ Stop: ___
Actual Start: 13:22 Stop: 14:12

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ___

Antenna Height	Before sessions begins Measure and record both Meters and Feet		[illegible]	
A = Datum Point to top of Tripod (Tripod Height)	2.0m	6.562		
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	[illegible] Inches Hg	[illegible]	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of [illegible] Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat .
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 2000		12-6-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		2000	340

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:25 Stop: 8:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y) / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 2000

Station PID, if any:

Date (UTC): 12-6-07

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 2000

Day of Year (Julian): 340

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright IV

Phone #(850) 678-5141

e-mail address: Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:46 Stop: 9:32

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1302		12-6-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1302	340

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 16:45 Stop: 1:18

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1301		12-6-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1301	340

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		P

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: ~~William~~ E Wright IV

Phone #**(850) 678-5141**

e-mail address: Wright **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 11:30 Stop: 11:56

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1303		12-6-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1303	340

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright IV

Phone #**(850) 678-5141**

e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:51 Stop: 13:24

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 8310		12-6-07

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		8310	340

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Dight IV

Phone #**(850) 678-5141**

e-mail address Dight @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:35 Stop: 14:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WD

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5134		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5134	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 8:00 Stop: 9:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5131		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5131	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William F Wright
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:09 Stop: 8:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5132		1/22/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5132	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 8:03 Stop: 9:03
Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WD

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GP 1819		1/22/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1219	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: [signature]
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 8:22 Stop: 8:52 AM
Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5137		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5137	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 9:15 Stop: 10:07

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSC2	Mdl: Zephyr Geodetic
P/N: 40406-46	P/N: ST1-TY5GMDB	P/N: 41249-00
S/N: 0220262321	S/N: SS27A18921	S/N: 60052064
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tripbrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10 — Gustin, Cothern, & Tucker, Inc.

GPS Station / Observation / Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): cP5131

Station PID, if any:

Date (UTC): 1-22-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5131

Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Dwight

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:54 Stop: 9:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5133		Station PID, if any:	Date (UTC): 1/22/08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5133	Day of Year (Julian): 022
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: 9:13 Stop: 9:50

Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118134**	S/N: **SS27A18719**	S/N: **4627118134**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**

Model: **none**

Part Number: **none**

Serial Number: **none**

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1305		1/22/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1305	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 7:22 Stop: 7:54
Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1153		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1153	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: William E Wright
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 10:13 Stop: 10:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod Slip-Leg Tripod Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:
_____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station / Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5135

Station PID, if any:

Date (UTC): 1-22-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5135

Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:21 Stop: 10:57

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5136
Station PID, if any:
Date (UTC):

General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 5136
Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR
Project Number: **E07066**
Station Serial # (SSN):
Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name:
Phone #**(850) 678-5141**
e-mail address **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 10:06 Stop: 10:50
Actual Start: Stop:

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked Meters (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: .dat
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1305		1/22/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1305	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: 9:56 Stop: 10:55

Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CORS138		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5138	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Dight

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:30 Stop: 12:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1159		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1159	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:20 Stop: 12:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5141

Station PID, if any:

Date (UTC): 1-22-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5141

Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: 11:25 Stop: 12:05

Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5139

Station PID, if any:

Date (UTC): 1/22/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5139

Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: 1131 Stop: 1209

Actual Start: Stop:

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	Feet	Before sessions ends: Measure and record both Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date:_____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP1161

Station PID, if any:

Date (UTC): 1-22-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1161

Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 12:16 Stop: 12:50
Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP S140		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S140	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E. Wright
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:22 Stop: 12:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5143		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5143	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:15 Stop: 12:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5141

Station PID, if any:

Date (UTC): 1/22/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5141

Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: 12:07 Stop: 12:57

Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5142

Station PID, if any:

Date (UTC): 1-22-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5142

Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 13:08 Stop: 13:50
Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: VW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5143		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5143	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:55 Stop: 13:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1159		1-22-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1159	022

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:02 Stop: 13:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1160

Station PID, if any:

Date (UTC): 1/22/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1160

Day of Year (Julian): 022

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 13:20 Stop: 14:00
Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CPS144		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S144	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:24 Stop: 9:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5146		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5146	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:01 Stop: 9:48

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5145		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5145	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 9:16 Stop: 9:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1168

Station PID, if any:

Date (UTC): 1-23-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1168

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: 9:04 Stop: 9:50

Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5147		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5147	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:59 Stop: 10:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5145

Station PID, if any:

Date (UTC): 1-23-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5145

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:45 Stop: 10:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WL

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5148		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5148	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:11 Stop: 10:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): FLGPS 57

Station PID, if any:

Date (UTC): 1/23/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: 9:56 Stop: 10:45
Actual Start: _____ Stop: _____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1170		1-28-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1170	028

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:53 Stop: 11:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5149		1/23/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5149	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joe Whitmire

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:03 Stop: 11:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5148		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5148	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:42 Stop: 11:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1171

Station PID, if any:

Date (UTC): 1/23/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1171

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:55 Stop: 11:33

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5152		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5152	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		P

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 1209 Stop: 12:38

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station / Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5150

Station PID, if any:

Date (UTC): 11/23/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5150

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:40 Stop: 12:39

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1171

Station PID, if any:

Date (UTC): 11/23/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1171

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:35 Stop: 12:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5151		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5151	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		10

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
º ' "	º ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 11:58 Stop: 12:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19144
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:_____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station / Observation / Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1172

Station PID, if any:

Date (UTC): 1-23-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1172

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:43 Stop: 13:46

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station / Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5153

Station PID, if any:

Date (UTC): 1/23/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5153

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joe Buhrman

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:50 Stop: 13:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5152

Station PID, if any:

Date (UTC): 1-23-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5152

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:46 Stop: 13:43

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tripbrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5154		Station PID, if any:	Date (UTC): 11/23/08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5154	Day of Year (Julian): 023
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: 15 Stop: _____

Actual Start: 13:00 Stop: 13:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1173		Station PID, if any:	Date (UTC): 1-23-08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1173	Day of Year (Julian): 023
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): F

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address ___ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 13:42 Stop: 14:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118138**	S/N: **SS27A18719**	S/N: **4627118138**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N)
Antenna plumb after session? (Y / N)
Antenna oriented to true north? (Y / N)
Weather observed at antenna ht. (Y / N)
Antenna ground plane used? (Y / N)
Circle Yes or No -If no, explain

Antenna radome used? (Y / N)
Eccentric occupation (>0.5 mm) (Y / N)
Any obstructions above 10º? (Y / N)
Radio interference source nearby? (Y / N)
If yes, describe. Use Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**

Model: **none**

Part Number: **none**

Serial Number: **none**

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**

Model: **Kestrel 4000**

Part Number: **NK 0840**

Serial Number: **426871**

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: **Nielsen-Kellerman**

Model: **Kestrel 4000**

Part Number: **NK 0840**

Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat .

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5154

Station PID, if any:

Date (UTC): 1/23/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5154

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 13:37 Stop: 14:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date:_____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1174		1-23-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1174	023

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:55 Stop: 14:25

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station / Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP S155

Station PID, if any:

Date (UTC): 1-23-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: S155

Day of Year (Julian): 023

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:59 Stop: 14:27

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1048		1.24.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1048	024

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:36 Stop: 8:43

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1049		1-24-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1049	024

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:09 Stop: 9:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -if no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tripbrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5129

Station PID, if any:

Date (UTC): 1-24-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5129

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:40 Stop: 9:49

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5120

Station PID, if any:

Date (UTC): 1/24/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5120

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:50 Stop: 9:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1042		Station PID, if any:	Date (UTC): 1·24·08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1042	Day of Year (Julian): 024
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:24 Stop: 11:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**

Model: **none**

Part Number: **none**

Serial Number: **none**

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: W W

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GPS130		1-24-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5130	024

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
º ' "	º ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start 10:25 Stop: 11:17

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19144
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:_____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1015

Station PID, if any:

Date (UTC): 1-24-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1015

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 10:00 Stop: 11:19

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 3000		1-24-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		3000	024

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:40 Stop: 11:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5123

Station PID, if any:

Date (UTC): 1/24/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5123

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joe Brumley

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:10 Stop: 12:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP SI22

Station PID, if any:

Date (UTC): 1-24-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: SI22

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:06 Stop: 12:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1039

Station PID, if any:

Date (UTC): 1.24.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1039

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joel [illegible]

Phone #**(850) 678-5141**

e-mail address @**GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 11:51 Stop: 12:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1038		1-24-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1038 / Day of Year (Julian): 024
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:34 Stop: 13:03

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1038		1-24-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1038	024

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		0

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 13:07 Stop: 14:43

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) B 548

Station PID, if any:

Date (UTC): 1.24.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joe Blanchard

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 13:16 Stop: 14:33

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:_____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CPSIZZ

Station PID, if any:

Date (UTC): 1-24-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: SIZZ

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 13:47 Stop: 19:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5121		Station PID, if any:	Date (UTC): 1/24/08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5121	Day of Year (Julian): 024
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:43 Stop: 14:16

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5128

Station PID, if any:

Date (UTC): 1.24.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5128

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:07 Stop: 15:54

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1032

Station PID, if any:

Date (UTC): 1-24-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1032

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:22 Stop: 15:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1246		1-24-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1246	024

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:11 Stop: 15:48

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1248		Station PID, if any:	Date (UTC): 1.24.08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1248	Day of Year (Julian): 024
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): E

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:17 Stop: 16:03

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N)
Antenna plumb after session? (Y / N)
Antenna oriented to true north? (Y / N)
Weather observed at antenna ht. (Y / N)
Antenna ground plane used? (Y / N)
Circle Yes or No -If no, explain

Antenna radome used? (Y / N)
Eccentric occupation (>0.5 mm) (Y / N)
Any obstructions above 10º? (Y / N)
Radio interference source nearby? (Y / N)
If yes, describe. Use Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GP 5127		1.24.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5127	024

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		F

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #**(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 16:26 Stop: 16:50

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:_____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) GP 1248

Station PID, if any:

Date (UTC): 1.24.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1248

Day of Year (Julian): 024

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joe [illegible]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 16:05 Stop: 17:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1030		1-24-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1030	024

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 16:14 Stop: 16:54

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1029

Station PID, if any:

Date (UTC): 4-24-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1029

Day of Year (Julian): 084

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 16:22 Stop 16:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5156		1/25/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5156	025

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
º ' "	º ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____ Actual Start: 8:15 Stop: 9:01

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B. H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: MW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5157		Station PID, if any:	Date (UTC): 1-25-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5157	Day of Year (Julian): 025
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:14 Stop: 9:11

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat_.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1181

Station PID, if any:

Date (UTC): 1-25-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1181

Day of Year (Julian): 025

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:46 Stop: 9:06

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1180		1.25.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1180	025

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:05 Stop: 9:06

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat_____.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5159

Station PID, if any:

Date (UTC): 1.25.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5159

Day of Year (Julian): 025

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start:_____ Stop:_____

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters		Before sessions ends: Measure and record both Meters	
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1182

Station PID, if any:

Date (UTC): 1.25.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1182

Day of Year (Julian): 025

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:20 Stop: 9:53

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-2321 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5158		1-25-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5158	025

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:26 Stop: 9:58

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GPS157		1-25-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5157	025

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		_____ Meters	William E Wright
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		_____ Meters	e-mail address
			_____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 9:33 Stop: 9:53

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19144
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:_____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GP 5159		1.25.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Broward County, Fl		5159	025

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Water Conservation Area No.3	07-058		S

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:01 Stop: 11:06

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Jan-08

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:
UW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5160		1-25-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5160	025

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:09 Stop: 10:54

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	Feet	Before sessions ends: Measure and record both Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5162

Station PID, if any:

Date (UTC): 1-25-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5162

Day of Year (Julian): 025

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:27 Stop: 10:46

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5161

Station PID, if any:

Date (UTC): 1.25.08

General Location: Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 5161

Day of Year (Julian): 025

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 10:10 Stop: 10:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5162
Station PID, if any:
Date (UTC): 1-25-08

General Location: Lake Okeechobee, Fl
Airport ID, if any:
Station 4-Character ID: 5162
Day of Year (Julian): 025

Project Name: Lake Okeechobee Area LiDAR
Project Number: **E07066**
Station Serial # (SSN):
Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name:
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 10:57 Stop: 13:56

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5161

Station PID, if any:

Date (UTC): 1.25.08

General Location: Broward County, Fl

Airport ID, if any:

Station 4-Character ID: 5161

Day of Year (Julian): 025

Project Name: Water Conservation Area No.3

Project Number: **07-058**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 13:50 Stop: 15:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Jan-08

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
Airport		1-25-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			025

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 14:59 Stop: 14:59

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5163

Station PID, if any:

Date (UTC): 1/26/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5163

Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:17 Stop: 9:44

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5164

Station PID, if any:

Date (UTC): 1-26-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5164

Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:21 Stop: 9:41

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5165		1.26.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Broward County, Fl			026

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Water Conservation Area No.3	07-058		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
º ' "	º ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:20 Stop: 9:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Jan-08

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GP 5162		1.26.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Fl		5162	026

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:13 Stop: 9:42

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1183

Station PID, if any:

Date (UTC): 1-26-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1183

Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 9:53 Stop: 10:24

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:

Circle One: Camcorder Battery / 12V DC 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19144
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y) / N)	Circle
Antenna plumb after session?	(Y) / N)	Yes or No
Antenna oriented to true north?	(Y) / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5167

Station PID, if any:

Date (UTC): 1/26/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5167

Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:59 Stop: 10:19

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP S165 026

Station PID, if any:

Date (UTC): 1/26/08

General Location: Broward County, Fl

Airport ID, if any:

Station 4-Character ID: S165

Day of Year (Julian): 026

Project Name: Water Conservation Area No.3

Project Number: 07-058

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 9:52 Stop: 10:23

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Jan-08

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5166
Station PID, if any:
Date (UTC): 1-26-08

General Location: Lake Okeechobee, Fl
Airport ID, if any:
Station 4-Character ID: 5166
Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name:
Phone #(850) 678-5141
e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 9:59 Stop: 10:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CPS167

Station PID, if any:

Date (UTC): 1-26-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: S167

Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:20 Stop 11:01

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5169		1-26-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Broward County, Fl		5169	026

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Water Conservation Area No.3	07-058		C

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Jack Brantley

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:30 Stop: 10:57

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Jan-08

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5168		1-26-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5168	026

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 10:31 Stop: 10:57	Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19144
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5170		Station PID, if any:	Date (UTC): 1.26.08
	General Location: Lake Okeechobee, Fl	Airport ID, if any:	Station 4-Character ID: 5170	Day of Year (Julian): 026
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: [signature]
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:37 Stop: 11:00

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118134	S/N: SS27A03028	S/N: 4627118134
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CPS173		1-26-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S173	026

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		P

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	William E Wright
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 11:11 Stop: 11:34

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220262321
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18921
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 60052064
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CPS172			1-26-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5172	Day of Year (Julian): 026
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:06 Stop: 11:31

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5171		1/26/05

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5171	026

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:06 Stop: 11:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
CP 5170

Station PID, if any:

Date (UTC): 1/26/08

General Location:
Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 5170

Day of Year (Julian): 026

Project Name:
Lake Okeechobee Area LiDAR

Project Number:
E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name:
Gustin, Cothern & Tucker, Inc.
Operator Full Name:
[signature]
Phone #(850) 678-5141
e-mail address
_____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:02 Stop: 11:31

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:
WJ

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1184

Station PID, if any:

Date (UTC): 1.26.08

General Location: Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 1184

Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:43 Stop: 12:10

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5175		1-26-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5175 — Day of Year (Julian): 026
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): — Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: [signature]
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:47 Stop: 12:07

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.10

Gustin, Cothern, & Tucker,Inc

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5174

Station PID, if any:

Date (UTC): 1-26-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5174

Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:46 Stop: 12:09

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19144**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2321

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5173

Station PID, if any:

Date (UTC): 1-26-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5173

Day of Year (Julian): 026

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:41 Stop: 12:12

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220262321**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18921**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **60052064**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5231		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5231	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:04 Stop: 10:32

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.056	6.562	2.056	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5175

Station PID, if any:

Date (UTC): 1.31.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5175

Day of Year (Julian): 031

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 9:54 Stop: 10:28

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP S230		Station PID, if any:	Date (UTC): 1-31-08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: S230	Day of Year (Julian): 031
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____.

Actual Start: 10:08 Stop: 10:28.

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8 Model 2**	Mdl: **TSC2**	Mdl: **R8 Model 2**
P/N: **60158-66**	P/N: **ST1-TY5GMDB**	P/N: **60158-66**
S/N: **4629119324**	S/N: **SS23A15407**	S/N: **4629119324**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**

Model: **none**

Part Number: **none**

Serial Number: **none**

Last Calibration Date: 25-Sept-07 .

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP SZC7		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		SZC7	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Dwight

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:50 Stop: 10:32

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07 .

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1119		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1119	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:48 Stop: 11:08

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5229		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5229	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		5

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:41 Stop: 11:12

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118134	S/N: SS27A18719	S/N: 4627118134
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP S228		Station PID, if any:	Date (UTC): 1-31-08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: S228	Day of Year (Julian): 031
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: William E Wright
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 10:43 Stop: 11:08

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8 Model 2	Mdl: TSC2	Mdl: R8 Model 2
P/N: 60158-66	P/N: ST1-TY5GMDB	P/N: 60158-66
S/N: 4629119324	S/N: SS23A15407	S/N: 4629119324
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters and Feet		Before sessions ends: Measure and record both Meters and Feet	
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP SZL7		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		SZL7	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 10:36 Stop: 11:13

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5222		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5222	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:42 Stop: 12:03

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5224

Station PID, if any:

Date (UTC): 1-31-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5224

Day of Year (Julian): 013

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:26 Stop: 12:09

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP SZ28

Station PID, if any:

Date (UTC): 1-31-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: SZ28

Day of Year (Julian): 031

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William F. Doight

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:42 Stop: 12:03

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP S223		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S223	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address **@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 11:35 Stop: 12:12

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5226		Station PID, if any:	Date (UTC): 1-31-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5226	Day of Year (Julian): 031
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:18 Stop: 12:42

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5224		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5224	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name:
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:12 Stop: 12:46

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: VW

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP SZ25		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		SZ25	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:22 Stop: 12:42

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5223

Station PID, if any:

Date (UTC): 1-31-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5223

Day of Year (Julian): 031

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:15 Stop: 12:42

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
CP 5221

Station PID, if any:

Date (UTC): 01-31-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5221

Day of Year (Julian): 031

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Jeff Cothern

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:00 Stop: 13:32

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP SZZO		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		SZZO	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:05 Stop: 13:26

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y) / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5219

Station PID, if any:

Date (UTC): 1.31.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5219

Day of Year (Julian): 031

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:06 Stop: 13:26

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WD

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP S222		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S222	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright
		Meters	Phone #**(850) 678-5141**
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 12:56 Stop: 13:33

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	**Before sessions begins:** Measure and record both **Meters**	**Feet**	**Before sessions ends:** Measure and record both **Meters**	**Feet**
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	**Time (UTC)**	**Dry Bulb Temp** Fahrenheit	Celsius	**Wet Bulb Temp** Fahrenheit	Celsius	**Relative % Humidity**	**Atmospheric Pressure** Inches Hg	Millibars	**Weather Codes**
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP SZ18

Station PID, if any:

Date (UTC): 1-31-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: SZ18

Day of Year (Julian): 031

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William F. Wright

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 13:54 Stop: 19:14

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS23A15407**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119324**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5217		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida			031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:27 Stop: 14:14

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one.
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	Feet	Before sessions ends: Measure and record both Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.

Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5217

Station PID, if any:

Date (UTC): 1-31-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5217

Day of Year (Julian): 031

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): o ' "

NAD83 Longitude (W): o ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 13:42 Stop: 14:18

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DLS

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5216

Station PID, if any:

Date (UTC): 1-31-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5216

Day of Year (Julian): 031

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:44 Stop: 14:23

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5216		1-31-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5216	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 14:25 Stop: 14:55

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.10

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5215

Station PID, if any:

Date (UTC): 1-31-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5215

Day of Year (Julian): 021

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:30 Stop: 14:52

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS23A15407
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629119324
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5214		12/5/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5214	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		G

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: Stop:	15 Seconds
Actual Start: 14:32 Stop: 14:52	Elevation Mask:
	10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118134	S/N: SS27A18719	S/N: 4627118134
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5213		1.31.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5213	031

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		6

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:27 Stop: 14:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP SZ10

Station PID, if any:

Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: SZ10

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Haslett

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9'43 Stop: 10'20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP SZ11

Station PID, if any:

Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: SZ11

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:55 Stop: 10:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5212		Station PID, if any:	Date (UTC): 2-1-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5212	Day of Year (Julian): 032
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: [signature]
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:42 Stop: 10:21

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5214
Station PID, if any:
Date (UTC): 2.1.08
General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 5214
Day of Year (Julian): 032
Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name:
Phone #(850) 678-5141
e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 9:51 Stop: 10:15

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5209

Station PID, if any:

Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5209

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:27 Stop: 10:59

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y/N) Circle
Antenna plumb after session? (Y/N) Yes or No
Antenna oriented to true north? (Y/N) -If no,
Weather observed at antenna ht. (Y/N) explain
Antenna ground plane used? (Y/N)

Antenna radome used? (Y/N) If yes,
Eccentric occupation (>0.5 mm) (Y/N) describe.
Any obstructions above 10º? (Y/N) Use
Radio interference source nearby? (Y/N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CR SZ10		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		SZ10	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright
		Meters	Phone #**(850) 678-5141**
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1022 Stop: 1100

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5207		Station PID, if any:	Date (UTC): 2-1-08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5207	Day of Year (Julian): 032
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: [signature]
Phone #(850) 678-5141
e-mail address ___@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ___ Stop: ___
Actual Start: 10:35 Stop: 10:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: U.W

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5208
Station PID, if any:
Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 5208
Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name:
Phone #(850) 678-5141
e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 10:28 Stop: 11:05

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WL

GPS Static Unit No.3 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP SE06		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		SE06	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____
Actual Start: 1125 Stop: 1150

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSC2	Mdl: Zephyr
P/N: 40406-46	P/N: ST1-TY5GMDB	P/N: 39105-00
S/N: 0220288348	S/N: SS27A19336	S/N: 12282100
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP SZOS		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		SZOS	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1118 Stop: 1145

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5207		2/1/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5207	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Jeff Brumbaugh

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:01 Stop: 11:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1003		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1003	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:12 Stop: 11:45

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP S206		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S206	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		0

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 11:52 Stop: 12:26	Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220288348
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19336
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr
P/N: 39105-00
S/N: 12282100
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y) / N	Circle
Antenna plumb after session?	(Y) / N	Yes or No
Antenna oriented to true north?	(Y) / N	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tripach:

Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP 5204			2-1-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5204	Day of Year (Julian): 032
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): P

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1159 Stop: 1233

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5202		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5202	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:02 Stop: 12:26

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5203
Station PID, if any:
Date (UTC): 2nd Oct 08
General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 5203
Day of Year (Julian): 032
Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name:
Phone #(850) 678-5141
e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 12:34 Stop: 13:08

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JV

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP S201		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S201	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:47 Stop: 13:08

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
GP 1120			2-1-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1120	Day of Year (Julian): 032
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Joe Brumley

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:48 Stop: 13:13

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5199		2.1.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5199	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		Z

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:20 Stop: 13:46

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5198

Station PID, if any:

Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5198

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:21 Stop: 13:53

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220288348
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19336
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr
P/N: 39105-00
S/N: 12282100
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
CP 5200

Station PID, if any:

Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5200

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 13:14 Stop: 13:48

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tripbrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5197		2.1.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5197	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		F

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 13:28 Stop: 13:51

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP S194		Station PID, if any:	Date (UTC): 2-1-08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: S194	Day of Year (Julian): 032
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): G

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address ___ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 14:05 Stop: 14:38

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**

Model: **none**

Part Number: **none**

Serial Number: **none**

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5195

Station PID, if any:

Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5195

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 14:13 Stop: 14:33

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5199

Station PID, if any:

Date (UTC): 2.1.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5199

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: Joe Brinkman

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:55 Stop: 14:33

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5196		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5196	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		G

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:03 Stop: 14:36

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.3

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP S193		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S193	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		1

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:
° ' "	° ' "	Meters
		NAVD88 Orthometric Height: Meters
		GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 14:48 Stop: 15:13

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5194		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5194	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		H

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Cothern II
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:40 Stop: 15:09

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5192

Station PID, if any:

Date (UTC): 2.1.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5192

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): H

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:44 Stop: 15:09

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CR 5190		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5190	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		H

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 14:49 Stop: 15:13

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5191
Station PID, if any:
Date (UTC): 2.1.08

General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 5191
Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name:
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 15:22 Stop: 15:52

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP5188

Station PID, if any:

Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5188

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): I

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:37 Stop: 15:52

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Measure and record both Meters	Feet	Before sessions ends: Measure and record both Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5189
Station PID, if any:
Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 5189
Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR
Project Number: **E07066**
Station Serial # (SSN):
Session ID (A,B,C etc.): I

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name:
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 15:21 Stop: 16:02

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Cirde one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5190		Station PID, if any:	Date (UTC): 2-1-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5190	Day of Year (Julian): 032
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): 1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:12 Stop: 16:05

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5185

Station PID, if any:

Date (UTC): 2-1-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5185

Day of Year (Julian): 032

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): J

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:22 Stop: 16:42

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5187		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5187	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		J

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: _____ Stop: _____ Actual Start: 16:11 Stop: 16:51

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220288348
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19336
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr
P/N: 39105-00
S/N: 12282100
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y) / N) Circle
Antenna plumb after session?	(Y) / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5186		2.1.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5186	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		J

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 16:12 Stop: 16:48

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: VW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP S188		2-1-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S188	032

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		3

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #**(850) 678-5141**
			e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 16:00 Stop: 16:42

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5181		2.2.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5181	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone #(850) 678-5141
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 8:57 Stop: 10:31

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSCe	Mdl: Zephyr Geodetic
P/N: 40406-46	P/N: 45185-20	P/N: 41249-00
S/N: 0220242196	S/N: 00049259	S/N: 12534174
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5182		2-2-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5182	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name:
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start: ____ Stop: ____ Actual Start: 8:48 Stop: 9:40

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked ____ Meters ____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat .
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5183		Station PID, if any:	Date (UTC): 2-02-08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5183	Day of Year (Julian): 033
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: [signature]
Phone #(850) 678-5141
e-mail address ___@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ___ Stop: ___
Actual Start: 8:42 Stop: 9:24

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118134	S/N: SS27A18719	S/N: 4627118134
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No.3

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5185		2-2-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5185	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 8:48 Stop: 9:24

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5184		2/02/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5184	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:04 Stop: 9:31

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	Feet	Before sessions ends: Measure and record both Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5180		2.2.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5180	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:55 Stop: 10:29

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP 5179			2.2.08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5179	Day of Year (Julian): 033
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name:
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:02 Stop: 10:22

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118134	S/N: SS27A18719	S/N: 4627118134
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8 ~~5.906~~	5.906 ~~1.8~~	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UJ

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5177		2-2-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5177	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wesley
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 9:46 Stop: 10:40

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date:_____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP S178

Station PID, if any:

Date (UTC): 2-6-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: S178

Day of Year (Julian): 033

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: W. Hiram E. Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:55 Stop: 10:22

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GP 5176		2.2.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5176	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Joe Whitmire

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:38 Stop: 11:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) GP 1185		Station PID, if any:	Date (UTC): 2.2.08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1185	Day of Year (Julian): 033
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1046 Stop: 11:11

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP S177

Station PID, if any:

Date (UTC): 2/02/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: S177

Day of Year (Julian): 033

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:42 Stop: 11:17

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1122

Station PID, if any:

Date (UTC): 2-2-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1122

Day of Year (Julian): 033

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1031 Stop: 1111

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
CP 1132			2.2.08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1132	Day of Year (Julian): 033
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:33 Stop: 13:21

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle Yes or No
Antenna plumb after session? (Y / N) -If no, explain
Antenna oriented to true north? (Y / N)
Weather observed at antenna ht. (Y / N)
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes, describe.
Eccentric occupation (>0.5 mm) (Y / N)
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1130		2.2.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Fl		1130	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:57 Stop: 13:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1189		2-2-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1189	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 1219 Stop: 1315

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP S124		2-2-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S124	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		P

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:56 Stop: 13:27

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
CP 5125

Station PID, if any:

Date (UTC): 2/2/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5125

Day of Year (Julian): 033

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D-E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 12:49 Stop: 14:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5126

Station PID, if any:

Date (UTC): 2.2.08

General Location: Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 5126

Day of Year (Julian): 033

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 14:00 Stop: 14:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1021		2-2-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1021	033

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 13:50 Stop: 14:37

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1188		2-7-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1188 / Day of Year (Julian): 038
Project Name: Lake Okeechobee Area LiDAR	**Project Number:** E07066	Station Serial # (SSN): / Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:22 Stop: 10:19

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1014

Station PID, if any:

Date (UTC): 2-7-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 1014

Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): 1

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:40 Stop: 10:12

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tripbrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1012		2-7-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1012	038

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: [signature]
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:38 Stop: 10:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10°?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5345

Station PID, if any:

Date (UTC): 2-7-08

General Location: Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 5345

Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone **#(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:52 Stop: 10:12

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5341

Station PID, if any:

Date (UTC): 2-7-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5341

Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:29 Stop: 12:12

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): P 5343

Station PID, if any:

Date (UTC): 2-7-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5343

Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:57 Stop: 11:56

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220288348
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19336
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr
P/N: 39105-00
S/N: 12282100
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1138 1138		Station PID, if any:	Date (UTC): 2-7-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1138	Day of Year (Julian): 038
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Joel Dunlap

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:03 Stop: 12:18

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP5300
Station PID, if any:
Date (UTC): 2-7-08

General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 5300
Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: Meters
NAVD88 Orthometric Height: Meters
GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name:
Phone #(850) 678-5141
e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: Stop:
Actual Start: 11:31 Stop: 11:55

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5301		Station PID, if any:	Date (UTC): 2-7-08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5301	Day of Year (Julian): 038
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: [signature]
Phone #(850) 678-5141
e-mail address ___@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: ___ Stop: ___
Actual Start: 13:10 Stop: 13:35

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118134	S/N: SS27A18719	S/N: 4627118134
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5,906	1.8	5,906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)
CP 5337

Station PID, if any:

Date (UTC): 2-7-08

General Location:
Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5337

Day of Year (Julian): 038

Project Name:
Lake Okeechobee Area LiDAR

Project Number:
E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name:
Gustin, Cothern & Tucker, Inc.
Operator Full Name: William E Wright
Phone #**(850) 678-5141**
e-mail address Wright @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 12:31 Stop: 13:52

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): LP 5338

Station PID, if any:

Date (UTC): 2-7-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5338

Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:55 Stop: 13:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP S341

Station PID, if any:

Date (UTC): 2-7-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: S341

Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Lillian E Dwight

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 1214 Stop: 1405

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5342		Station PID, if any:	Date (UTC): 2-7-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5342	Day of Year (Julian): 038
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address @GCTengineering.com

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 12:47 Stop: 13:54

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Antenna Height

	Before sessions begins: Meters	Feet	Before sessions ends: Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____.

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5340		2-7-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5340	038

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Umstead

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 14:34 Stop: 16:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5339

Station PID, if any:

Date (UTC): 2-7-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5339

Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:17 Stop: 16:28

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) / N) Circle
Antenna plumb after session? (Y) / N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5316

Station PID, if any:

Date (UTC): 2-7-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5316

Day of Year (Julian): 038

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): o ' "

NAD83 Longitude (W): o ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 14:39 Stop: 15:52

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters

Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No.3

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5338		2-7-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5338	038

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 13:37 Stop: 15:52

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220288348
Firm Ver: 1.23
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19336
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr
P/N: 39105-00
S/N: 12282100
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5334		2.7.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5334	038

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
o ' "	o ' "	_____ Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		_____ Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		_____ Meters	_____@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 15:08 Stop: 15:40	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)		2.0		

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WV

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) GP 5302		Station PID, if any:	Date (UTC): 2-7-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5302	Day of Year (Julian): 038
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 17:27 Stop: 17:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5336		2-7-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5336	038

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:15 Stop: 18:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: [signature]

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5333		2-7-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5333	038

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Davis Jr

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 17:09 Stop: 17:50

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 1203		Station PID, if any:	Date (UTC): 2-7-08
General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 1203	Day of Year (Julian): 038
Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____@**GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 17:02 Stop: 1857

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5316		2-7-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5316	038

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:44 Stop: 18:07

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5327		Station PID, if any:	Date (UTC): 2·8·08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5327	Day of Year (Julian): 039
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.
Operator Full Name: [signature]
Phone #(850) 678-5141
e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 9:40 Stop: 10:54

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSCe	Mdl: Zephyr Geodetic
P/N: 40406-46	P/N: 45185-20	P/N: 41249-00
S/N: 0220242196	S/N: 00049259	S/N: 12534174
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: _____

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: BU

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5317

Station PID, if any:

Date (UTC): 2-8-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5317

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 10:02 Stop: 10:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date:_____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UU

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5340

Station PID, if any:

Date (UTC): 2-8-08

General Location: Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 5340

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 10:13 Stop: 10:40

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station / Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 3010

Station PID, if any:

Date (UTC): 2/8/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 3010

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:40 Stop: 11:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5328		Station PID, if any:	Date (UTC): 2/8/08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5328	Day of Year (Julian): 039
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): A - C

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:21 Stop: 13:34

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSC2	Mdl: Zephyr
P/N: 40406-46	P/N: ST1-TY5GMDB	P/N: 39105-00
S/N: 0220288348	S/N: SS27A19336	S/N: 12282100
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07 .

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5330		2.8.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5330	039

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name:
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141
			e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 1210 Stop: 1212

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters
Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WL

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP5331		2.8.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5331	039

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		Meters	@GCTengineering.com

Observation Session Times (UTC):	Epoch Interval:
Schedule Start: _____ Stop: _____	15 Seconds
Actual Start: 11:47 Stop: 12:27	Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118310	S/N: SS27A03028	S/N: 4627118310
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____ Meters _____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle Yes or No -If no, explain	
Antenna plumb after session?	(Y / N)		
Antenna oriented to true north?	(Y / N)		
Weather observed at antenna ht.	(Y / N)		
Antenna ground plane used?	(Y / N)		
Antenna radome used?	(Y / N)	If yes, describe. Use Vis. Form	
Eccentric occupation (>0.5 mm)	(Y / N)		
Any obstructions above 10°?	(Y / N)		
Radio interference source nearby?	(Y / N)		

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	Feet	Before sessions ends: Measure and record both Meters	Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WU

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5329		2/8/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Fl		5329	039

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:30 Stop: 12:29

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat_.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5332
Station PID, if any:
Date (UTC): 2/8/08
General Location: Lake Okeechobee, Florida
Airport ID, if any:
Station 4-Character ID: 5332
Day of Year (Julian): 039
Project Name: Lake Okeechobee Area LiDAR
Project Number: E07066
Station Serial # (SSN):
Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "
NAD83 Longitude (W): ° ' "
NAD83 Ellipsoidal Height: _____ Meters
NAVD88 Orthometric Height: _____ Meters
GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: William E Wright
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 11:45 Stop: 12:23

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CPS315		2-8-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5315	039

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 12:52 Stop: 14:00

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10º?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier

Visibility Obstruction Form: Attached / Submitted Earlier

Photographs of Station: Attached / Submitted Earlier

Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5326		2.8.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5326	039

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		S

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	**Gustin, Cothern & Tucker, Inc.**
		NAVD88 Orthometric Height:	Operator Full Name:
		Meters	
		GEOID99 Geoid Height:	Phone **#(850) 678-5141**
		Meters	e-mail address
			@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 13:14 Stop: 13:45

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118310**	S/N: **SS27A03028**	S/N: **4627118310**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WL

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1068		2-8-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Fl		1068	039

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:54 Stop: 13:43

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5318		Station PID, if any:	Date (UTC): 2/8/08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5318	Day of Year (Julian): 039
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 12:42 Stop: 13:34

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: **Trimble**	Mfr: **Trimble**	Mfr: **Trimble**
Mdl: **R8**	Mdl: **TSC2**	Mdl: **R8**
P/N: **50158-66**	P/N: **ST1-TY5GMDB**	P/N: **50158-66**
S/N: **4627118138**	S/N: **SS27A18719**	S/N: **4627118138**
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**

Model: **none**

Part Number: **none**

Serial Number: **none**

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station / Observation / Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) GP 5314

Station PID, if any:

Date (UTC): 2-8-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5314

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: ____ Meters

NAVD88 Orthometric Height: ____ Meters

GEOID99 Geoid Height: ____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name:

Phone #(850) 678-5141

e-mail address ____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:____ Stop:____

Actual Start: 14:33 Stop: 15:34

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters
Vehicle Parked ____Meters
____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LW

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5320

Station PID, if any:

Date (UTC): 2.8.08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5320

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): LD

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 14:55 Stop: 15:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: UW

GPS Static Unit No.3 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5321

Station PID, if any:

Date (UTC): 2/8/08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E. Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:22 Stop: 15:23

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 1068

Station PID, if any:

Date (UTC): 2-8-08

General Location: Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 1068

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): D

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:08 Stop: 15:35

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5322		2/8/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5322	039

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		D

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 14:31 Stop: 15:15

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A18719**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118138**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.3

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5324		2-8-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5324	039

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 16:06 Stop: 16:26

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-2196

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5323

Station PID, if any:

Date (UTC): 2-8-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5323

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:57 Stop: 16:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)		2.0		

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Static Unit No. NEI-8310

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5320		2·8·08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5320	239

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		E

NAD83 Latitude (N): ___ º ___ ' ___ "

NAD83 Longitude (W): ___ º ___ ' ___ "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: [signature]

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 15:48 Stop: 16:38

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)		2.0		

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: LU

GPS Static Unit No. NEI-8134

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5319

Station PID, if any:

Date (UTC): 2-8-08

General Location: Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 5319

Day of Year (Julian): 039

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): E

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Light

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 15:46 Stop: 16:26

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5303		2-11-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5303	042

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 9:19 Stop: 10:18

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session?	(Y / N)	Circle
Antenna plumb after session?	(Y / N)	Yes or No
Antenna oriented to true north?	(Y / N)	-If no,
Weather observed at antenna ht.	(Y / N)	explain
Antenna ground plane used?	(Y / N)	
Antenna radome used?	(Y / N)	If yes,
Eccentric occupation (>0.5 mm)	(Y / N)	describe.
Any obstructions above 10º?	(Y / N)	Use
Radio interference source nearby?	(Y / N)	Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5306		2-11-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5306	042

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "	NAD83 Longitude (W): ° ' "	NAD83 Ellipsoidal Height: Meters	Agency Full Name: Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC): Schedule Start:_____ Stop:_____ Actual Start: 9:43 Stop: 10:04

Epoch Interval: 15 Seconds. Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: 5700
P/N: 40406-46
S/N: 0220242196
Firm Ver: 1.23
Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSCe
P/N: 45185-20
S/N: 00049259
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: Zephyr Geodetic
P/N: 41249-00
S/N: 12534174
Cable Length ___ Meters
Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5304		2-11-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5304	042

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 9:00 Stop: 10:24

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220288348**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19336**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr**
P/N: **39105-00**
S/N: **12282100**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -if no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
GP 5313		2-11-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5213	042

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Joe Wahnsley

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:53 Stop: 10:04

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session?	(Y / N) Circle
Antenna plumb after session?	(Y / N) Yes or No
Antenna oriented to true north?	(Y / N) -If no,
Weather observed at antenna ht.	(Y / N) explain
Antenna ground plane used?	(Y / N)
Antenna radome used?	(Y / N) If yes,
Eccentric occupation (>0.5 mm)	(Y / N) describe.
Any obstructions above 10°?	(Y / N) Use
Radio interference source nearby?	(Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.

Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DL

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 1068		2.11.08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1068	042

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: Joel Dykstra

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 8:30 Stop: 10:19

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118134
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: JC

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5307

Station PID, if any:

Date (UTC): 2-11-08

General Location: Lake Okeechobee, Fl

Airport ID, if any:

Station 4-Character ID: 5307

Day of Year (Julian): 042

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: Meters

NAVD88 Orthometric Height: Meters

GEOID99 Geoid Height: Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: Stop:

Actual Start: 11:30 Stop: 11:37

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DLS

GPS Static Unit No. NEI-8310 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 530S

Station PID, if any:

Date (UTC): 2-11-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 530S

Day of Year (Julian): 042

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: William E Wright

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 10:36 Stop: 11:30

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Firm Ver:

Circle One: Camcorder Battery / 12V DC / 110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A03028
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118310
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP S306

Station PID, if any:

Date (UTC): 2-11-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: S306

Day of Year (Julian): 042

Project Name: Lake Okeechobee Area LiDAR

Project Number: E07066

Station Serial # (SSN):

Session ID (A,B,C etc.): B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____ **@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:00 Stop: 11:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A** + **B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____ .dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8138 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5312		2-11-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5312	042

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 10:37 Stop: 11:23

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A18719
Firm Vers:

GPS Antenna

Mfr: Trimble
Mdl: R8
P/N: 50158-66
S/N: 4627118138
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch any unusual conditions. Be very explicit as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP 5311

Station PID, if any:

Date (UTC): 2-11-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: 5311

Day of Year (Julian): 042

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start: _____ Stop: _____

Actual Start: 11:42 Stop: 12:34

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118310**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.56	2.0	6.56
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-2196 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM): CP S310

Station PID, if any:

Date (UTC): 2-11-08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID: S310

Day of Year (Julian): 042

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.): C

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Wright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: 11:55 Stop: 12:24

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **5700**
P/N: **40406-46**
S/N: **0220242196**
Firm Ver: **1.23**

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSCe**
P/N: **45185-20**
S/N: **00049259**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **Zephyr Geodetic**
P/N: **41249-00**
S/N: **12534174**
Cable Length ___ Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename:_____.dat.

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No. NEI-8134 — Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5308		2-11-08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Fl			042

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	**E07066**		2

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**
Operator Full Name: [signature]
Phone #**(850) 678-5141**
e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):
Schedule Start:_____ Stop:_____
Actual Start: 11:34 Stop: 12:30

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A03028**
Firm Vers:

GPS Antenna
Mfr: **Trimble**
Mdl: **R8**
P/N: **50158-66**
S/N: **4627118134**
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 1.8 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: WW

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM) CP 5309		Station PID, if any:	Date (UTC): 2-11-08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: 5309	Day of Year (Julian): 042
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N): ___ ° ___ ' ___ "

NAD83 Longitude (W): ___ ° ___ ' ___ "

NAD83 Ellipsoidal Height: ___ Meters

NAVD88 Orthometric Height: ___ Meters

GEOID99 Geoid Height: ___ Meters

Agency Full Name: Gustin, Cothern & Tucker, Inc.

Operator Full Name: [signature]

Phone #(850) 678-5141

e-mail address ___@GCTengineering.com

Observation Session Times (UTC):

Schedule Start: ___ Stop: ___

Actual Start: 11:57 Stop: 12:20

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8	Mdl: TSC2	Mdl: R8
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4627118138	S/N: SS27A18719	S/N: 4627118138
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount

Manufacturer: SECO

Model: none

Part Number: none

Serial Number: none

Last Calibration Date: 25-Sept-07

Tribrach:

Circle one: None Wild Topcon Other Fixed Mount

Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = 2.0 Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Last Calibration or Check Date: ___

Psychrometer:

Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___.dat.

Standard NGS Format aaaaddds.xxx

aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By: DW

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5311		4/22/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5311	113

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: _____ Meters	Operator Full Name: William E Wright
		GEOID99 Geoid Height: _____ Meters	Phone #(850) 678-5141
			e-mail address _____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start: _____ Stop: _____
Actual Start: 10:20 Stop: 11:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 (5800)
P/N: 50158-66
S/N: 4513146893
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19157
Firm Vers:
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 (5800)
P/N: 50158-66
S/N: 4513146893
Cable Length N/A Meters
Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 12-Jan-06

Tribrach:
Circle one:
None / Wild / Topcon / Other / Fixed Mount
Last Calibration Date: _____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp °F	Dry Bulb Temp °C	Wet Bulb Temp °F	Wet Bulb Temp °C	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: .dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CPS305		4/22/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		S305	113

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		A

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	_____ Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height:	Operator Full Name: William E Wright
		_____ Meters	Phone #(850) 678-5141
		GEOID99 Geoid Height:	e-mail address
		_____ Meters	_____@GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:____.
Actual Start 10:00 Stop: 11:20

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629118920
Firm Ver:
Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector
Mfr: Trimble
Mdl: TSC2
P/N: ST1-TY5GMDB
S/N: SS27A19157
Firm Vers:

GPS Antenna
Mfr: Trimble
Mdl: R8 Model 2
P/N: 60158-66
S/N: 4629118920
Cable Length N/A Meters
Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y) N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 12-Jan-06 .

Tribrach:
Circle one:
None Wild Topcon Other Fixed Mount
Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: .dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Static Unit No.7

Gustin, Cothern, & Tucker, Inc.

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP1060		4/22/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		1060	113

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E. Wright
		GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address @GCTengineering.com

Observation Session Times (UTC):
Schedule Start:_____ Stop:____.
Actual Start: 12:23 Stop: 13:23

Epoch Interval: 15 Seconds
Elevation Mask: 10 Degrees

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: R8 (5800)	Mdl: TSC2	Mdl: R8 (5800)
P/N: 50158-66	P/N: ST1-TY5GMDB	P/N: 50158-66
S/N: 4513146893	S/N: SS27A19157	S/N: 4513146893
Firm Ver:	Firm Vers:	Cable Length N/A Meters
Circle One: Camcorder Battery / 12V DC / 110V AC / Other	Firm Vers:	Vehicle Parked _____Meters _____(Direction) from Antenna

Antenna plumb before session? (Y) N) Circle
Antenna plumb after session? (Y) N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one: Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 12-Jan-06 .

Tribrach:

Circle one: None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B; H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: _____.

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: .dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)	Station PID, if any:	Date (UTC):
CP 5309		4/22/08

General Location:	Airport ID, if any:	Station 4-Character ID:	Day of Year (Julian):
Lake Okeechobee, Florida		5309	113

Project Name:	Project Number:	Station Serial # (SSN):	Session ID (A,B,C etc.):
Lake Okeechobee Area LiDAR	E07066		B

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name: William E Dright

Phone #**(850) 678-5141**

e-mail address _____**@GCTengineering.com**

Observation Session Times (UTC):

Schedule Start:_____ Stop:____.

Actual Start: 12:17 Stop: 13:28

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629118920**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629118920**
Cable Length N/A Meters

Vehicle Parked _____Meters
_____(Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 12-Jan-06 .

Tribrach:

Circle one:
None / Wild / Topcon / Other / Fixed Mount

Last Calibration Date:_____.

Antenna Height

	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	1.8	5.906	1.8	5.906
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____.

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: .dat .

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log

Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)

Station PID, if any:

Date (UTC): /08

General Location: Lake Okeechobee, Florida

Airport ID, if any:

Station 4-Character ID:

Day of Year (Julian):

Project Name: Lake Okeechobee Area LiDAR

Project Number: **E07066**

Station Serial # (SSN):

Session ID (A,B,C etc.):

NAD83 Latitude (N): ° ' "

NAD83 Longitude (W): ° ' "

NAD83 Ellipsoidal Height: _____ Meters

NAVD88 Orthometric Height: _____ Meters

GEOID99 Geoid Height: _____ Meters

Agency Full Name: **Gustin, Cothern & Tucker, Inc.**

Operator Full Name:

Phone #**(850) 678-5141**

e-mail address _____@GCTengineering.com

Observation Session Times (UTC):

Schedule Start:_____ Stop:_____

Actual Start: Stop:

Epoch Interval: 15 Seconds

Elevation Mask: 10 Degrees

GPS Receiver

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Firm Ver:

Circle One:
Camcorder Battery / 12V DC
110V AC / Other

Data Collector

Mfr: **Trimble**
Mdl: **TSC2**
P/N: **ST1-TY5GMDB**
S/N: **SS27A19157**
Firm Vers:

GPS Antenna

Mfr: **Trimble**
Mdl: **R8 Model 2**
P/N: **60158-66**
S/N: **4629119319**
Cable Length N/A Meters

Vehicle Parked _____ Meters
_____ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10°? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod

Circle one:
Fixed-Height Tripod / Slip-Leg Tripod / Fixed Mount

Manufacturer: **SECO**
Model: **none**
Part Number: **none**
Serial Number: **none**
Last Calibration Date: 25-Sept-07

Tribrach:

Circle one:
None Wild Topcon Other Fixed Mount

Last Calibration Date:_____

Antenna Height

	Before sessions begins: Meters	Before sessions begins: Feet	Before sessions ends: Meters	Before sessions ends: Feet
A = Datum Point to top of Tripod (Tripod Height)				
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = **A + B** **H** = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = _____ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Last Calibration or Check Date: _____

Psychrometer:

Manufacturer: **Nielsen-Kellerman**
Model: **Kestrel 4000**
Part Number: **NK 0840**
Serial Number: **426871**

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: _____.dat

Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

GPS Station Observation Log	Station Designation: (check applicable: FBN / CBN / PAC / SAC / BM)		Station PID, if any:	Date (UTC):
	CP SSC1			4/22/08
	General Location: Lake Okeechobee, Florida	Airport ID, if any:	Station 4-Character ID: SSC1	Day of Year (Julian): 113
	Project Name: Lake Okeechobee Area LiDAR	Project Number: E07066	Station Serial # (SSN):	Session ID (A,B,C etc.): C

NAD83 Latitude (N):	NAD83 Longitude (W):	NAD83 Ellipsoidal Height:	Agency Full Name:
° ' "	° ' "	Meters	Gustin, Cothern & Tucker, Inc.
		NAVD88 Orthometric Height: Meters	Operator Full Name: William E Wright III
Observation Session Times (UTC): Schedule Start: Stop: Actual Start: 12:51 Stop: 13:14	Epoch Interval: 15 Seconds Elevation Mask: 10 Degrees	GEOID99 Geoid Height: Meters	Phone #(850) 678-5141 e-mail address Wright@GCTengineering.com

GPS Receiver	Data Collector	GPS Antenna
Mfr: Trimble	Mfr: Trimble	Mfr: Trimble
Mdl: 5700	Mdl: TSC2	Mdl: Zephyr
P/N: 40406-46	P/N: ST1-TY5GMDB	P/N: 39105-00
S/N: 0220288348	S/N: SS27A19331	S/N: 12282100
Firm Ver: 1.23	Firm Vers:	Cable Length ___ Meters
Circle One: Camcorder Battery / 12V DC 110V AC / Other		Vehicle Parked ___ Meters ___ (Direction) from Antenna

Antenna plumb before session? (Y / N) Circle
Antenna plumb after session? (Y / N) Yes or No
Antenna oriented to true north? (Y / N) -If no,
Weather observed at antenna ht. (Y / N) explain
Antenna ground plane used? (Y / N)

Antenna radome used? (Y / N) If yes,
Eccentric occupation (>0.5 mm) (Y / N) describe.
Any obstructions above 10º? (Y / N) Use
Radio interference source nearby? (Y / N) Vis. Form

Antenna Mount or Tripod
Circle one: Fixed-Height Tripod Slip-Leg Tripod Fixed Mount
Manufacturer: SECO
Model: none
Part Number: none
Serial Number: none
Last Calibration Date: 25-Sept-07

Tribrach:
Circle one: None Wild Topcon Other Fixed Mount
Last Calibration Date: ___

Antenna Height	Before sessions begins: Measure and record both Meters	and Feet	Before sessions ends: Measure and record both Meters	and Feet
A = Datum Point to top of Tripod (Tripod Height)	2.0	6.562	2.0	6.562
B = Additional Offset to ARP, if any (tribrach, spacer, etc.)				
H = Antenna Height = A + B H = Datum Point to Antenna Reference Point (ARP)				

Note: Meters = Feet / 3.2808333333. Height entered into receiver = ___ Meters.
Please note &/or sketch **any** unusual conditions. Be very **explicit** as to where and how measured.

Barometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871
Last Calibration or Check Date: ___

Psychrometer:
Manufacturer: Nielsen-Kellerman
Model: Kestrel 4000
Part Number: NK 0840
Serial Number: 426871

Weather Data	Time (UTC)	Dry Bulb Temp Fahrenheit	Dry Bulb Temp Celsius	Wet Bulb Temp Fahrenheit	Wet Bulb Temp Celsius	Relative % Humidity	Atmospheric Pressure Inches Hg	Atmospheric Pressure Millibars	Weather Codes
Before									
Middle									
After									
Average of Readings									See back Of form For Weather codes

Remarks, Comments on Problems, Sketches, Pencil Rubbings, etc.

Data Filename: ___ .dat.
Standard NGS Format aaaaddds.xxx
aaaa = 4-character ID, ddd = Julian Day, s = session, xxx = file dependant extension

Updated Station Description: Attached / Submitted Earlier
Visibility Obstruction Form: Attached / Submitted Earlier
Photographs of Station: Attached / Submitted Earlier
Pencil Rubbing: Attached / Submitted Earlier

Log Checked By:

7 ~ NETWORK ADJUSTMENT – HHD-LAKE OKEECHOBEE AREA ~ 7

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

User name	H. Wayne Walker	**Date & Time**	4:09:04 PM 7/16/2008
Coordinate System	US State Plane 1983	**Zone**	Florida East 0901
Project Datum	NAD 1983 (Conus)	**Vertical Datum**	NAVD 88
Geoid Model	G03U07	**Coordinate Units**	Meters
Distance Units	Meters	**Height Units**	Meters

Adjustment Style Settings - 95% Confidence Limits

Residual Tolerances

To End Iterations : 0.000010m
Final Convergence Cutoff : 0.005000m

Covariance Display

Horizontal
Propagated Linear Error [E] : U.S.
Constant Term [C] : 0.00000000m
Scale on Linear Error [S] : 1.96

Three-Dimensional
Propagated Linear Error [E] : U.S.
Constant Term [C] : 0.00000000m
Scale on Linear Error [S] : 1.96

Elevation Errors were used in the calculations.

Adjustment Controls

Compute Correlations for Geoid : False

Horizontal and Vertical adjustment performed

Set-up Errors

GPS
Error in Height of Antenna : 0.000m
Centering Error : 0.000m

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Statistical Summary

Successful Adjustment in 1 iteration(s)

Network Reference Factor : 1.01
Chi Square Test (α=95%) : PASS
Degrees of Freedom : 2488.00

GPS Observation Statistics

Reference Factor : 1.01
Redundancy Number (r) : 2440.69

Individual GPS Observation Statistics

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B1	1.21	1.93	B38	0.53	1.92
B2	0.57	2.19	B41	1.57	2.40
B4	0.87	2.30	B44	1.15	1.54
B6	1.53	1.54	B48	0.92	0.74
B9	1.15	1.14	B51	0.55	2.68
B11	0.71	2.42	B57	1.55	1.68
B12	1.69	1.35	B59	1.67	1.47
B13	1.20	1.42	B64	0.32	1.50
B14	0.33	1.36	B65	0.87	1.91
B15	1.63	0.66	B66	0.27	2.93
B19	0.99	2.26	B67	0.81	2.55
B21	1.03	2.51	B68	0.44	0.57
B22	0.61	1.48	B70	2.03	2.61
B25	0.74	2.06	B71	1.18	1.79
B27	0.69	2.91	B82	0.49	1.96
B28	1.17	2.45	B87	0.55	2.63
B29	0.28	1.06	B88	0.58	1.86
B31	0.93	2.18	B92	0.84	1.84
B34	1.06	2.31	B97	0.86	1.77

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B101	1.23	2.45	B164	0.39	2.18
B103	0.83	1.54	B165	1.52	1.59
B104	0.54	2.44	B166	0.84	1.97
B105	0.29	2.88	B170	1.94	0.80
B106	1.48	0.94	B177	0.56	2.25
B107	1.97	0.85	B179	0.52	1.77
B111	0.70	2.06	B180	0.40	2.48
B112	0.87	2.36	B182	1.92	1.16
B115	2.78	2.53	B183	1.74	1.07
B116	1.40	2.54	B185	0.60	2.15
B117	2.00	2.76	B187	1.26	2.31
B125	1.23	2.53	B188	2.03	2.76
B126	1.65	2.18	B193	0.82	2.28
B128	1.25	2.51	B194	1.47	2.67
B129	0.91	2.19	B196	0.49	1.84
B130	0.95	1.84	B197	0.89	0.88
B131	2.49	2.39	B207	0.52	2.15
B134	0.64	2.85	B208	0.50	1.85
B135	1.46	1.10	B211	1.17	2.88
B136	1.11	2.20	B212	1.58	2.65
B137	1.50	1.24	B213	0.30	0.91
B138	0.65	2.24	B218	1.15	2.62
B139	1.16	2.41	B219	0.38	1.35
B140	0.94	2.12	B227	0.45	2.06
B142	0.55	2.40	B229	2.32	2.34
B150	1.89	2.52	B231	0.79	2.25
B151	1.24	2.69	B232	1.38	1.26
B153	0.77	2.47	B238	2.22	1.85
B154	1.27	2.50	B239	2.33	2.28
B160	1.10	2.34	B245	1.19	2.20
B161	1.53	1.97	B252	1.26	1.26
B162	1.18	1.61	B254	1.31	2.19

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B258	0.39	1.41	B313	0.47	2.12
B260	1.24	1.61	B314	1.91	2.28
B261	2.18	1.50	B315	1.42	2.74
B262	2.99	2.37	B317	1.38	2.42
B263	1.97	2.54	B318	0.75	2.30
B264	0.65	2.62	B320	1.47	0.67
B265	1.61	2.17	B321	0.79	2.54
B266	1.38	2.71	B324	0.96	2.41
B270	0.95	2.21	B325	0.50	2.85
B271	0.57	1.57	B326	0.92	2.34
B272	1.96	2.31	B329	2.07	1.49
B273	1.41	2.08	B334	1.06	2.57
B276	1.15	2.67	B336	1.14	2.04
B278	1.17	2.40	B338	2.12	2.66
B281	1.18	2.04	B346	1.56	2.56
B282	0.79	1.89	B350	1.06	2.36
B283	0.65	2.30	B351	0.95	2.83
B284	1.09	2.66	B356	0.36	2.30
B285	0.59	2.80	B361	0.72	1.52
B290	0.86	2.61	B362	0.15	2.55
B294	0.59	1.89	B364	2.53	2.49
B298	0.78	2.27	B365	2.33	2.60
B299	1.16	2.72	B366	0.79	2.83
B300	1.66	0.41	B367	1.11	2.04
B301	1.39	2.43	B368	0.81	2.75
B302	1.23	2.34	B370	1.57	1.48
B303	0.73	1.60	B372	1.19	2.47
B305	1.77	1.05	B373	0.85	2.80
B306	1.25	1.52	B375	0.44	0.63
B307	0.68	0.91	B376	1.30	2.30
B310	0.86	1.35	B377	1.22	2.43
B311	0.80	2.01	B378	0.35	2.49

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B379	0.39	2.41	B485	0.30	2.30
B387	1.29	2.06	B486	0.53	2.08
B390	1.04	2.53	B491	1.04	2.72
B392	1.65	1.69	B493	0.88	2.00
B393	0.40	1.74	B494	0.21	1.43
B394	0.50	2.17	B495	0.70	2.09
B395	0.48	2.56	B500	0.95	2.28
B396	0.66	2.76	B501	1.65	2.22
B397	0.23	2.34	B503	1.39	2.79
B398	0.53	1.84	B504	1.02	2.03
B401	1.04	2.93	B505	0.80	2.19
B405	0.86	1.75	B507	1.58	1.59
B406	0.88	1.27	B508	0.90	1.60
B407	0.68	1.11	B509	0.54	2.28
B414	0.67	2.48	B512	0.04	1.75
B415	0.76	2.57	B515	0.90	2.41
B417	0.92	1.57	B516	0.82	1.33
B418	0.50	2.28	B518	0.41	1.52
B420	1.44	2.78	B519	0.31	2.42
B421	0.66	1.20	B527	0.91	1.42
B422	1.00	1.64	B528	0.90	1.16
B423	0.61	2.36	B529	1.77	2.49
B424	0.58	1.01	B530	1.10	1.12
B425	0.64	0.50	B531	2.37	2.66
B463	1.63	2.82	B536	0.79	2.37
B464	0.29	2.86	B537	1.15	2.24
B465	1.22	2.57	B539	1.18	2.43
B466	0.68	2.90	B541	1.24	2.13
B473	1.00	2.39	B542	1.44	2.53
B474	0.40	2.24	B544	0.48	1.70
B483	0.31	1.87	B545	0.99	1.82
B484	0.32	2.77	B549	1.47	1.29

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B560	1.47	2.53	B614	1.38	1.72
B561	0.39	1.03	B615	0.39	1.36
B563	0.84	2.86	B616	1.42	2.65
B564	1.32	1.64	B617	0.68	1.44
B565	0.83	2.36	B619	1.20	1.74
B566	0.36	2.68	B620	1.36	2.21
B567	0.90	1.16	B622	0.90	1.58
B573	0.31	2.04	B629	0.50	1.63
B576	1.46	2.64	B630	1.37	1.89
B577	0.64	1.92	B640	0.87	0.76
B578	0.95	2.82	B641	1.30	1.40
B579	0.71	2.13	B645	0.94	1.72
B580	0.58	1.82	B648	2.97	1.77
B581	0.31	1.37	B650	2.15	1.88
B583	0.45	2.94	B653	1.13	1.76
B584	1.66	1.75	B654	0.77	2.32
B585	0.37	2.38	B656	2.18	0.85
B587	0.82	2.72	B657	2.74	0.38
B588	1.21	1.53	B658	0.66	2.08
B589	0.09	2.38	B659	1.58	1.92
B591	0.55	2.29	B663	0.70	2.07
B592	1.52	2.71	B665	0.96	1.49
B593	1.41	2.68	B666	1.12	2.24
B594	1.24	2.87	B667	2.12	2.31
B596	0.69	2.35	B668	1.10	1.57
B602	0.27	2.64	B673	2.10	2.44
B607	0.97	0.92	B677	1.05	2.32
B609	0.30	2.46	B678	1.31	2.43
B610	0.99	2.89	B680	0.72	2.11
B611	1.26	1.73	B681	1.87	0.58
B612	1.82	0.63	B683	1.05	1.39
B613	0.86	1.54	B685	1.11	1.85

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B687	1.07	0.87	B810	1.83	1.69
B689	0.76	2.12	B811	1.39	2.62
B704	1.56	2.61	B816	0.99	2.31
B710	2.51	2.22	B819	0.82	2.02
B716	0.66	2.09	B820	1.49	2.59
B721	0.69	2.07	B821	1.59	1.74
B724	1.12	2.24	B823	1.04	1.86
B744	1.02	2.33	B824	0.61	2.55
B761	1.57	2.65	B825	1.61	2.09
B762	1.02	2.33	B826	2.21	2.27
B768	1.14	0.74	B827	1.50	2.33
B769	0.85	2.21	B832	1.03	2.18
B772	1.58	0.45	B835	0.92	1.67
B773	2.82	2.22	B837	1.38	2.24
B777	0.75	1.63	B838	0.93	2.01
B779	0.77	1.83	B840	0.92	1.00
B780	0.62	1.93	B843	0.60	2.03
B781	1.33	1.74	B845	1.90	1.14
B782	1.04	1.60	B846	1.93	1.58
B783	2.62	2.10	B849	0.53	2.41
B785	0.81	1.81	B859	0.47	2.05
B786	0.92	0.75	B861	0.64	2.49
B787	1.03	2.26	B862	0.34	2.61
B788	0.75	1.81	B864	0.92	2.33
B791	1.02	1.89	B865	0.96	2.83
B792	2.24	2.69	B866	0.68	2.44
B793	1.71	0.98	B867	0.37	1.70
B799	1.45	2.58	B868	0.72	2.62
B801	1.85	2.04	B869	1.14	2.09
B807	0.56	1.57	B872	0.59	1.48
B808	1.06	2.03	B876	0.98	2.04
B809	2.11	2.47	B880	0.54	2.25

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B881	0.44	1.97	B945	0.05	2.69
B883	0.08	2.52	B955	0.90	2.80
B887	0.45	2.85	B958	1.20	2.20
B889	0.62	1.56	B961	2.01	2.50
B890	1.62	1.72	B963	0.92	2.41
B892	0.80	1.23	B966	0.96	2.54
B896	1.20	2.54	B975	1.32	1.77
B897	0.88	1.84	B976	1.37	1.19
B904	0.43	1.42	B978	0.94	2.52
B905	1.06	1.97	B980	0.89	2.58
B906	1.83	1.89	B982	1.73	2.41
B909	0.47	1.28	B983	1.22	1.69
B910	0.98	2.61	B984	0.79	1.38
B911	1.50	1.13	B985	0.59	1.70
B914	1.62	0.72	B986	0.82	1.91
B915	1.03	1.18	B987	1.31	2.11
B916	1.94	2.32	B991	1.18	2.34
B919	2.36	1.57	B993	1.88	2.56
B920	0.69	1.35	B997	0.40	1.92
B924	0.41	1.71	B998	1.72	2.54
B925	1.15	1.44	B999	0.96	1.83
B926	0.99	1.07	B1000	1.85	2.08
B927	1.34	1.86	B1002	0.47	0.33
B930	0.74	2.32	B1009	0.62	1.49
B931	0.91	1.26	B1010	1.85	1.78
B932	2.20	1.43	B1016	0.85	1.90
B933	0.70	2.37	B1018	0.24	1.65
B935	1.38	1.41	B1022	1.39	2.66
B936	0.37	2.57	B1023	0.62	2.33
B937	0.87	1.43	B1025	1.96	0.94
B942	0.57	1.43	B1027	1.45	2.47
B943	1.28	1.73	B1028	1.54	1.77

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B1030	1.57	1.80	B1100	2.66	2.04
B1032	0.23	0.94	B1101	0.90	2.23
B1035	1.46	1.90	B1106	0.67	0.88
B1037	1.53	1.51	B1107	0.32	1.91
B1038	1.44	2.41	B1108	0.48	1.53
B1039	1.29	1.72	B1110	0.35	1.17
B1041	0.76	1.50	B1112	1.64	1.01
B1045	0.36	2.29	B1113	0.81	1.37
B1047	0.64	2.72	B1114	0.98	2.76
B1049	0.70	2.10	B1115	3.10	0.70
B1059	1.04	2.72	B1123	2.20	2.47
B1061	0.99	2.44	B1127	0.39	1.47
B1062	0.28	1.63	B1128	1.41	2.06
B1063	0.48	0.77	B1131	0.83	2.08
B1064	1.20	1.92	B1133	0.42	1.96
B1065	0.84	2.49	B1134	0.80	2.57
B1067	0.90	2.31	B1137	1.05	1.38
B1071	0.50	2.14	B1138	0.65	2.33
B1072	0.47	1.23	B1140	0.32	1.64
B1073	1.57	2.27	B1146	0.70	2.60
B1074	1.39	2.27	B1147	1.32	2.68
B1079	1.37	1.66	B1159	0.68	1.21
B1080	1.30	2.28	B1170	0.88	0.84
B1085	2.09	1.21	B1171	1.26	2.44
B1088	1.31	2.41	B1172	0.57	2.41
B1090	1.79	2.38	B1173	1.18	2.07
B1094	1.26	2.07	B1180	0.47	1.77
B1095	1.26	1.96	B1181	1.27	2.31
B1096	1.26	1.05	B1182	1.88	1.11
B1097	1.43	1.78	B1183	1.10	1.03
B1098	1.20	2.38	B1185	0.25	0.52
B1099	1.86	1.32	B1187	0.49	2.55

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B1190	0.95	1.20	B1263	0.29	2.34
B1197	2.37	1.99	B1265	1.14	1.58
B1200	1.09	1.13	B1268	1.00	2.08
B1201	1.81	1.44	B1271	1.21	2.13
B1202	1.85	1.73	B1272	0.49	2.34
B1203	1.60	1.72	B1273	1.49	2.31
B1208	1.18	1.39	B1278	0.87	2.26
B1209	0.57	0.67	B1282	0.65	0.63
B1213	0.91	1.00	B1283	2.19	2.69
B1214	0.87	1.45	B1287	0.82	2.68
B1215	0.81	0.83	B1288	0.83	1.70
B1219	1.92	1.58	B1290	0.64	1.18
B1220	1.88	0.35	B1291	0.56	0.92
B1221	0.52	2.37	B1296	0.86	2.01
B1227	0.54	2.29	B1297	1.13	1.74
B1230	0.67	1.43	B1302	0.59	2.42
B1231	1.17	2.08	B1312	1.57	2.24
B1232	2.27	2.56	B1313	0.72	2.84
B1233	0.57	2.52	B1326	1.99	2.12
B1237	2.10	2.00	B1327	0.62	2.52
B1239	0.56	2.22	B1328	0.49	2.38
B1241	0.56	1.87	B1330	1.23	2.73
B1242	0.43	0.78	B1340	0.64	2.39
B1243	1.58	2.46	B1341	2.49	2.27
B1244	0.65	1.94	B1342	2.42	2.61
B1245	0.16	1.41	B1343	1.36	1.46
B1246	0.26	2.15	B1344	1.76	2.40
B1251	0.58	2.27	B1345	0.92	2.57
B1252	1.28	2.00	B1346	0.73	2.69
B1253	1.24	2.32	B1347	1.03	2.47
B1256	0.99	2.31	B1348	0.70	1.63
B1259	0.26	1.86	B1350	1.36	1.58

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B1354	0.18	1.37	B1435	0.16	1.59
B1356	1.51	2.29	B1436	0.74	1.48
B1357	1.86	1.91	B1439	0.67	1.90
B1363	1.20	0.94	B1440	0.51	2.45
B1373	0.62	0.50	B1444	0.51	2.23
B1375	1.02	1.97	B1446	2.73	1.95
B1378	0.13	1.43	B1451	0.81	2.06
B1379	1.26	1.33	B1453	0.44	1.20
B1380	0.84	1.48	B1454	0.30	1.16
B1382	1.16	1.97	B1455	1.01	1.47
B1383	1.63	1.74	B1456	1.01	1.68
B1385	0.55	1.99	B1457	0.99	1.40
B1388	0.42	1.53	B1458	0.19	1.70
B1389	0.85	2.38	B1459	0.79	2.47
B1391	2.59	2.31	B1460	0.93	1.93
B1392	0.89	2.45	B1461	0.73	2.10
B1393	1.29	2.02	B1462	1.03	0.73
B1401	0.99	1.25	B1463	0.36	2.61
B1402	0.36	1.53	B1467	0.92	2.73
B1403	0.88	2.53	B1470	0.68	1.57
B1404	0.51	1.70	B1471	0.72	2.28
B1408	0.50	1.31	B1474	0.91	1.69
B1411	0.41	2.33	B1475	0.50	1.42
B1412	0.58	2.64	B1476	1.22	1.86
B1415	0.50	2.75	B1477	0.48	1.47
B1418	2.00	2.06	B1479	0.12	1.77
B1419	0.71	1.51	B1480	0.63	2.76
B1421	0.35	1.62	B1481	0.56	2.60
B1423	0.56	0.80	B1483	0.32	0.88
B1429	0.64	2.79	B1486	0.60	1.85
B1433	0.32	2.07	B1487	1.09	1.23
B1434	0.37	1.88	B1489	0.88	2.17

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B1491	0.62	2.65	B1559	0.29	1.41
B1493	0.14	1.38	B1560	2.36	0.31
B1503	0.56	1.77	B1561	0.74	1.91
B1506	0.68	1.52	B1564	0.71	1.14
B1507	0.07	1.58	B1569	0.79	2.46
B1513	0.71	2.84	B1574	1.23	2.38
B1514	1.41	1.69	B1575	0.35	2.58
B1516	0.36	0.90	B1582	0.64	2.91
B1517	0.51	1.15	B1583	0.31	2.45
B1518	0.92	1.44	B1584	0.83	1.15
B1519	1.51	1.18	B1585	0.81	2.28
B1522	1.71	2.48	B1586	1.14	2.57
B1523	0.98	2.63	B1588	0.70	1.62
B1524	0.88	1.99	B1589	0.17	2.52
B1525	0.47	2.34	B1590	0.90	1.96
B1526	0.39	2.50	B1591	0.27	2.40
B1527	1.21	1.36	B1592	0.98	2.50
B1528	0.52	1.43	B1593	0.90	2.57
B1530	0.14	1.80	B1596	0.32	2.24
B1533	0.92	2.83	B1597	1.38	2.90
B1534	0.42	1.58	B1604	1.03	2.70
B1535	0.93	1.53	B1605	0.78	1.63
B1536	0.44	1.17	B1609	2.23	2.48
B1540	0.39	1.42	B1610	1.54	1.26
B1543	1.04	2.33	B1611	0.78	2.72
B1546	0.95	1.81	B1613	0.47	2.85
B1547	0.44	1.74	B1614	0.88	2.85
B1549	1.89	1.19	B1629	0.83	2.47
B1550	0.69	2.58	B1630	1.11	1.94
B1552	1.04	2.43	B1631	0.89	2.32
B1556	0.74	1.04	B1632	2.05	2.34
B1557	1.07	2.05	B1635	0.86	1.34

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B1636	0.44	1.33	B1718	1.31	0.58
B1637	1.12	0.29	B1719	1.07	1.77
B1638	1.28	2.53	B1727	0.65	1.77
B1640	0.62	2.74	B1731	0.61	2.38
B1645	0.82	1.92	B1733	1.56	0.54
B1656	1.14	1.45	B1736	1.02	1.41
B1657	0.74	2.45	B1742	2.00	1.51
B1658	0.75	0.57	B1743	0.59	2.53
B1660	1.19	1.44	B1744	1.08	2.03
B1663	1.56	1.78	B1745	0.28	1.65
B1664	0.23	0.88	B1749	0.46	2.41
B1665	0.39	2.28	B1753	0.22	1.77
B1668	0.98	1.53	B1755	0.92	0.97
B1670	1.22	1.68	B1756	0.45	1.93
B1671	0.87	2.69	B1757	1.00	1.69
B1672	0.41	1.48	B1760	0.24	2.54
B1680	0.39	2.79	B1761	0.74	1.98
B1681	0.68	2.83	B1762	0.98	1.85
B1686	1.04	2.19	B1763	0.68	2.57
B1687	1.31	1.65	B1767	0.64	2.17
B1693	0.58	2.29	B1769	0.54	2.39
B1694	0.84	2.29	B1770	0.51	2.31
B1695	0.72	2.71	B1775	1.29	1.41
B1696	0.55	2.17	B1778	0.83	1.21
B1698	0.55	2.46	B1780	0.67	1.57
B1700	1.31	2.56	B1781	0.38	2.82
B1701	0.61	2.84	B1782	0.70	0.59
B1702	0.80	2.60	B1784	0.39	1.94
B1703	0.94	1.83	B1785	0.54	2.39
B1711	0.94	1.86	B1786	0.86	1.87
B1713	0.30	2.92	B1787	1.75	1.41
B1714	1.48	2.10	B1788	0.71	0.82

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B1789	0.75	0.90	B1848	0.81	1.57
B1790	0.78	1.93	B1854	1.28	1.74
B1791	1.07	2.37	B1856	2.89	1.25
B1792	1.24	0.76	B1858	0.59	2.12
B1793	0.91	0.94	B1859	1.93	2.06
B1794	0.56	2.72	B1860	0.29	1.72
B1795	1.56	1.51	B1862	0.74	2.30
B1796	0.13	2.50	B1865	0.52	2.49
B1797	0.21	2.89	B1866	0.69	1.92
B1801	0.45	2.93	B1869	0.80	2.39
B1802	0.75	2.67	B1872	1.63	1.93
B1803	1.75	2.60	B1874	2.61	1.38
B1808	1.99	2.05	B1877	2.25	2.29
B1811	1.03	2.91	B1879	0.63	1.51
B1815	2.31	1.94	B1884	0.44	2.66
B1820	0.56	2.29	B1885	0.34	1.57
B1821	0.34	2.05	B1887	0.92	1.59
B1822	0.94	2.40	B1890	1.66	1.43
B1824	0.54	2.33	B1892	0.11	2.17
B1825	2.22	0.59	B1893	0.66	2.11
B1828	0.29	2.27	B1894	0.81	2.14
B1830	0.58	1.03	B1896	1.55	1.19
B1831	1.06	1.01	B1897	1.36	2.06
B1833	1.22	2.50	B1898	0.80	0.11
B1836	1.11	2.27	B1899	1.18	0.67
B1838	0.79	2.68	B1900	0.60	2.77
B1839	1.70	1.89	B1901	1.08	1.56
B1842	0.69	1.20	B1903	0.95	1.56
B1843	1.57	1.18	B1905	0.83	2.06
B1844	1.89	1.81	B1907	2.22	2.11
B1846	1.20	1.74	B1909	0.83	1.93
B1847	1.10	2.49	B1910	0.61	1.08

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B1914	1.43	1.70	B1964	1.00	1.70
B1917	1.05	0.52	B1965	0.69	2.76
B1919	0.65	2.71	B1966	0.51	0.91
B1922	0.88	2.04	B1967	0.32	2.93
B1925	0.52	2.52	B1968	1.35	1.36
B1928	0.08	1.25	B1969	0.64	1.32
B1929	0.08	1.61	B1970	0.82	2.14
B1931	0.67	1.44	B1971	0.88	1.91
B1932	0.85	2.22	B1973	2.65	0.81
B1934	1.14	0.64	B1974	0.49	1.59
B1937	0.25	2.17	B1975	1.16	1.19
B1938	0.59	2.12	B1976	0.30	2.77
B1940	0.76	2.11	B1977	0.87	2.35
B1941	0.68	2.66	B1978	0.38	2.79
B1942	2.88	2.30	B1979	0.44	2.15
B1945	0.80	2.20	B1980	0.85	2.25
B1946	1.74	0.90	B1981	1.28	2.69
B1947	1.50	1.95	B1982	0.46	1.59
B1948	0.97	2.87	B1983	0.78	2.17
B1950	1.21	1.24	B1985	0.64	0.80
B1951	1.22	1.10	B1986	0.53	1.25
B1952	0.09	1.61	B1987	0.57	2.05
B1953	0.28	1.17	B1989	0.80	1.86
B1954	0.28	1.01	B1990	1.43	2.73
B1955	1.26	1.42	B1991	0.87	1.40
B1956	0.88	1.20	B1992	0.78	1.94
B1957	0.65	2.54	B1993	1.94	2.21
B1958	1.10	1.16	B1994	0.64	1.43
B1959	0.54	1.90	B1996	0.24	1.77
B1961	1.21	1.56	B1997	0.21	1.01
B1962	2.65	1.71	B1998	0.38	1.56
B1963	0.77	2.12	B1999	0.66	2.93

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B2000	0.16	1.37	B2037	0.19	1.47
B2001	0.29	1.39	B2038	0.89	2.22
B2002	0.52	2.74	B2039	0.61	2.12
B2003	0.39	1.88	B2040	0.67	1.88
B2004	0.43	1.38	B2041	0.56	2.87
B2006	0.54	1.36	B2042	0.65	2.71
B2008	0.70	1.76	B2043	0.61	1.59
B2009	0.35	0.92	B2044	0.24	2.81
B2010	1.35	1.63	B2045	1.21	1.97
B2012	0.48	1.21	B2046	0.50	2.57
B2013	0.76	2.03	B2047	0.46	1.85
B2014	0.64	1.45	B2048	0.47	1.63
B2015	0.68	1.71	B2049	0.38	2.37
B2016	0.22	1.70	B2050	0.64	2.67
B2017	0.68	2.06	B2051	0.14	1.53
B2018	0.33	1.44	B2052	1.07	1.21
B2019	0.37	1.60	B2053	0.25	1.79
B2020	0.36	1.88	B2055	0.46	1.47
B2021	0.14	1.27	B2056	0.37	1.92
B2022	0.35	0.86	B2057	0.20	2.89
B2023	0.35	0.87	B2058	0.19	1.43
B2024	0.77	1.18	B2059	0.63	2.17
B2026	0.47	1.65	B2060	0.82	1.72
B2027	0.20	2.10	B2061	0.60	1.97
B2028	0.35	1.65	B2062	0.25	2.81
B2029	0.68	2.75	B2063	0.55	1.60
B2030	0.45	2.19	B2064	0.35	1.81
B2031	0.75	1.45	B2065	0.34	2.27
B2033	0.48	1.24	B2066	0.48	2.52
B2034	0.24	1.89	B2067	0.48	0.94
B2035	0.15	1.44	B2068	0.52	2.71
B2036	0.20	1.76	B2069	0.25	1.73

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B2070	0.32	1.84	B2139	1.02	1.78
B2071	0.49	1.45	B2140	1.26	2.11
B2072	0.41	2.23	B2141	0.71	1.60
B2073	0.14	1.50	B2142	0.20	1.81
B2074	0.27	1.36	B2143	0.57	2.31
B2075	0.82	2.83	B2144	1.31	1.45
B2076	0.22	1.68	B2145	0.31	2.17
B2113	0.12	1.45	B2146	2.42	1.97
B2114	0.39	1.26	B2147	0.17	2.62
B2115	0.59	1.83	B2148	1.01	1.75
B2116	0.88	2.48	B2149	0.27	2.04
B2117	0.61	2.80	B2150	0.33	1.80
B2118	1.82	1.39	B2151	0.85	1.87
B2119	1.18	2.28	B2152	0.75	1.74
B2120	0.48	1.82	B2153	0.38	1.27
B2121	0.72	2.43	B2154	0.84	1.37
B2122	0.33	1.77	B2155	0.34	1.60
B2123	1.04	1.88	B2156	0.40	1.80
B2124	1.01	2.43	B2157	0.36	1.81
B2125	1.10	1.05	B2158	0.21	1.25
B2126	1.44	2.58	B2159	0.36	1.40
B2128	0.88	1.57	B2160	0.65	1.66
B2129	1.03	2.72	B2161	0.86	2.14
B2130	0.70	2.06	B2162	0.30	1.36
B2131	0.34	1.23	B2163	0.08	1.41
B2132	0.33	2.18	B2164	0.37	1.23
B2133	1.79	1.73	B2165	0.79	1.72
B2134	0.63	1.43	B2166	0.34	1.34
B2135	0.46	1.82	B2167	0.16	1.21
B2136	1.35	1.98	B2168	0.21	1.57
B2137	0.15	1.78	B2169	0.06	1.51
B2138	0.34	2.14	B2170	0.65	2.13

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B2171	0.81	2.45	B2203	0.21	1.81
B2172	0.86	2.15	B2204	0.37	1.79
B2173	0.95	1.26	B2205	0.31	1.89
B2174	0.34	2.58	B2206	0.17	1.63
B2175	0.28	1.51	B2207	0.25	1.39
B2176	0.26	2.63	B2208	0.18	1.69
B2177	0.33	1.60	B2209	1.13	1.82
B2178	0.88	2.11	B2210	0.21	1.19
B2179	0.61	2.09	B2211	0.54	1.46
B2180	0.78	1.95	B2212	0.52	2.33
B2181	1.07	2.17	B2213	0.32	1.81
B2182	0.86	1.98	B2214	0.34	1.51
B2183	0.71	2.11	B2215	0.30	1.75
B2184	0.45	1.56	B2216	0.37	2.24
B2185	0.17	1.68	B2217	0.24	1.79
B2186	0.21	1.51	B2218	0.16	1.81
B2187	0.48	1.20	B2219	0.32	1.49
B2188	0.23	1.74	B2220	0.25	1.37
B2189	0.37	1.49	B2222	0.35	1.00
B2190	0.43	1.17	B2223	0.72	2.73
B2191	0.46	1.23	B2224	0.43	1.75
B2192	0.56	1.40	B2225	0.11	1.50
B2193	0.59	1.36	B2226	0.54	1.54
B2194	0.13	1.67	B2227	0.74	1.97
B2195	0.70	1.08	B2228	0.52	1.80
B2196	0.06	1.59	B2229	0.32	1.68
B2197	0.05	1.08	B2230	0.44	1.36
B2198	0.09	0.98	B2231	0.18	1.99
B2199	0.33	1.67	B2232	0.51	1.51
B2200	0.39	2.02	B2233	0.62	2.78
B2201	0.79	2.73	B2234	0.42	1.29
B2202	0.28	1.17	B2235	0.09	1.42

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Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B2236	0.66	1.23	B2268	0.21	1.61
B2237	0.27	1.29	B2269	0.43	2.02
B2238	0.15	1.81	B2270	0.24	1.58
B2239	0.12	0.88	B2271	0.28	1.40
B2240	0.12	1.18	B2272	0.13	1.70
B2241	0.37	1.38	B2273	0.45	1.44
B2242	0.52	1.34	B2274	0.08	1.66
B2243	0.19	1.58	B2275	0.35	1.47
B2244	0.41	1.30	B2276	0.07	1.74
B2245	0.44	1.93	B2277	0.28	1.59
B2246	0.27	1.64	B2278	0.33	1.55
B2247	0.35	1.27	B2279	0.19	1.29
B2248	0.31	1.81	B2280	0.08	1.25
B2249	0.34	1.52	B2281	0.23	2.20
B2250	0.34	1.74	B2282	0.24	1.38
B2251	0.42	2.14	B2283	0.18	1.38
B2252	0.19	1.50	B2284	0.08	1.17
B2253	0.16	1.31	B2285	0.18	1.58
B2254	0.05	1.74	B2286	0.80	1.36
B2255	0.83	2.11	B2287	0.62	1.31
B2256	0.43	2.40	B2288	0.22	1.55
B2257	0.97	1.88	B2289	0.27	1.13
B2258	0.94	2.26	B2290	0.35	1.92
B2259	0.35	1.64	B2291	0.44	1.79
B2260	0.10	1.70	B2292	0.10	1.49
B2261	0.31	1.80	B2293	0.19	1.54
B2262	0.19	2.00	B2294	0.11	1.68
B2263	0.40	1.50	B2295	0.12	0.94
B2264	0.07	1.56	B2296	0.13	1.98
B2265	0.57	1.31	B2297	0.30	1.48
B2266	0.16	1.11	B2298	0.18	1.87
B2267	0.76	1.16	B2299	0.25	1.51

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B2300	0.38	1.22	B2332	0.86	1.65
B2301	0.21	1.29	B2333	0.05	1.41
B2302	0.34	1.79	B2334	0.20	2.11
B2303	0.15	2.00	B2335	0.52	2.80
B2304	0.11	1.58	B2336	0.12	2.17
B2305	0.31	1.74	B2337	0.35	2.28
B2306	0.22	1.50	B2338	0.96	2.44
B2307	0.55	1.23	B2339	0.35	1.56
B2308	0.50	2.12	B2340	1.20	1.61
B2309	0.62	1.77	B2341	0.73	1.09
B2310	0.42	2.38	B2342	0.97	1.79
B2311	0.23	1.46	B2343	0.60	2.06
B2312	0.35	2.00	B2344	0.59	1.60
B2313	0.62	2.75	B2345	0.71	2.01
B2314	0.43	1.92	B2346	0.66	1.54
B2315	0.38	2.30	B2347	0.43	1.71
B2316	0.14	1.58	B2349	0.59	1.75
B2317	0.15	1.95	B2350	0.24	2.08
B2318	0.31	1.99	B2351	0.82	2.00
B2319	0.15	1.64	B2352	0.93	2.18
B2320	0.25	1.88	B2353	0.94	2.78
B2321	0.60	2.43	B2354	0.55	2.04
B2322	0.15	1.47	B2355	2.09	1.50
B2323	0.53	1.64	B2356	1.86	1.64
B2324	0.36	1.81	B2357	0.18	1.70
B2325	0.44	1.66	B2358	0.06	2.03
B2326	0.81	2.41	B2359	0.17	1.19
B2327	1.08	1.93	B2360	0.64	1.76
B2328	0.28	1.44	B2361	0.90	1.74
B2329	0.26	1.76	B2362	0.63	1.96
B2330	0.35	1.80	B2363	0.71	1.94
B2331	0.16	1.38	B2364	0.60	1.90

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B2365	0.36	1.63	B2398	0.85	2.20
B2366	0.14	1.81	B2399	0.87	1.50
B2367	0.22	1.59	B2400	0.14	1.48
B2368	0.29	2.09	B2401	0.64	2.19
B2369	0.41	2.57	B2402	0.19	2.02
B2370	1.45	2.65	B2403	0.47	1.07
B2371	1.25	2.56	B2404	0.43	1.09
B2372	0.28	2.10	B2405	0.61	1.94
B2373	0.40	2.31	B2406	0.53	0.82
B2374	0.29	2.14	B2407	1.11	2.36
B2375	0.35	2.03	B2408	0.87	2.14
B2376	0.90	1.44	B2409	1.74	2.14
B2377	0.18	2.36	B2410	0.29	1.13
B2378	0.06	2.15	B2411	0.38	2.03
B2379	1.06	2.52	B2412	0.44	2.00
B2380	1.18	1.38	B2413	1.63	1.87
B2381	2.10	2.23	B2414	1.30	1.70
B2382	0.55	1.83	B2415	1.22	2.71
B2383	0.54	1.93	B2416	0.73	1.94
B2384	0.14	2.26	B2417	0.22	2.72
B2386	1.41	2.12	B2418	0.61	1.78
B2387	1.34	1.36	B2419	0.41	1.29
B2388	0.73	2.08	B2420	0.46	1.76
B2389	0.50	1.48	B2421	0.33	2.03
B2390	0.19	1.85	B2422	0.68	1.58
B2391	0.32	1.35	B2423	0.58	1.27
B2392	0.24	2.29	B2424	0.33	1.71
B2393	0.45	2.05	B2425	0.84	1.73
B2394	0.65	2.01	B2426	1.06	2.04
B2395	0.44	1.75	B2427	0.28	1.82
B2396	0.98	2.40	B2428	0.94	1.14
B2397	0.49	1.11	B2429	0.51	1.95

Observation ID	Reference Factor	Redundancy Number	Observation ID	Reference Factor	Redundancy Number
B2430	0.30	1.77	B2448	0.72	2.31
B2431	0.68	2.56	B2449	0.67	1.99
B2432	0.29	1.84	B2450	0.13	1.56
B2433	0.42	2.09	B2451	0.82	2.16
B2434	0.69	2.60	B2452	0.47	2.55
B2435	0.96	2.45	B2453	1.55	1.10
B2436	0.34	2.03	B2454	0.62	2.12
B2437	0.54	2.13	B2455	0.53	2.02
B2438	0.53	2.77	B2456	0.57	1.85
B2439	0.58	1.70	B2457	0.69	2.21
B2440	0.58	1.32	B2458	0.41	1.07
B2441	0.59	2.74	B2459	0.61	0.31
B2442	0.78	1.29	B2460	1.10	2.61
B2443	0.33	2.41	B2461	0.48	0.18
B2444	0.64	2.16	B2462	1.14	2.47
B2445	0.77	1.47	B2463	1.30	2.48
B2446	0.46	1.35	B2465	1.35	2.48
B2447	1.22	0.77			

Geoid Model Statistics

Reference Factor : 0.95
Redundancy Number (r) : 47.31

The GPS height errors exceed the geoid errors. Further scaling of the geoid errors is not recommended.

Weighting Strategies

GPS Observations
User-defined Scalar Applied to All Observations

Scalar : 4.00

Geoid Observations
User-defined Scalar Applied to All Observations

Scalar : 0.02

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Adjusted Coordinates

Adjustment performed in NAD 1983 (Conus)

Number of Points : 502
Number of Constrained Points : 59
Elevation Only : 23
Horizontal and Elevation Only : 36

Adjusted Grid Coordinates

Errors are reported using 1.96σ.

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1204	248556.915m	0.003m	230778.465m	0.003m	3.397m	0.040m	
CP1200	255810.382m	0.003m	232708.140m	0.004m	4.291m	0.041m	
CP1143	265057.390m	0.002m	229811.897m	0.003m	3.753m	0.040m	
CP1141	267813.229m	0.002m	231594.762m	0.002m	3.676m	0.000m	e
CP1198	256151.637m	0.005m	241336.239m	0.005m	5.923m	0.042m	
G 489	274762.855m	0.000m	231094.138m	0.000m	6.900m	0.000m	N E e
CP1139	273067.188m	0.003m	230394.791m	0.004m	4.497m	0.041m	
CP1144	262811.960m	0.002m	228052.936m	0.003m	5.594m	0.041m	
CP1142	265872.370m	0.002m	231431.952m	0.003m	4.400m	0.040m	
LICAN	270657.683m	0.000m	230474.589m	0.000m	10.630m	0.000m	N E e
CP1138	276071.729m	0.004m	233162.958m	0.006m	11.229m	0.000m	e
CP1137	280360.295m	0.005m	236631.450m	0.007m	5.672m	0.000m	e
CP1140	269845.731m	0.002m	230930.246m	0.002m	3.599m	0.040m	
CP1145	260280.526m	0.003m	226820.822m	0.004m	12.171m	0.040m	
CP1247	269090.913m	0.002m	237069.803m	0.003m	3.361m	0.040m	
700-93-06-B08	276386.627m	0.005m	241445.360m	0.006m	4.234m	0.041m	
CP1241	261860.304m	0.003m	236240.769m	0.004m	4.476m	0.040m	
CP1192	275983.111m	0.005m	244902.988m	0.006m	3.754m	0.041m	
FDEM-PB1	264800.106m	0.002m	233367.494m	0.002m	3.713m	0.040m	
S 2 27	262250.037m	0.000m	228238.532m	0.000m	13.276m	0.000m	N E e
CP1193	274703.241m	0.004m	238481.101m	0.005m	4.943m	0.041m	
CP1234	269386.672m	0.004m	249806.354m	0.004m	5.381m	0.000m	e

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1197	265141.037m	0.004m	241904.076m	0.004m	4.147m	0.041m	
C 414	261589.473m	0.000m	222605.602m	0.000m	11.809m	0.000m	N E e
CP1211	255362.205m	0.003m	216968.404m	0.003m	4.462m	0.000m	e
CP1153	269088.722m	0.003m	207663.369m	0.004m	7.199m	0.040m	
CP1305-PA1	266592.293m	0.003m	207324.233m	0.004m	5.150m	0.041m	
LO 7	265307.084m	0.000m	214669.940m	0.000m	7.085m	0.000m	N E e
CP1151	266594.414m	0.003m	212135.217m	0.004m	5.329m	0.041m	
CP1148	261988.513m	0.002m	221477.844m	0.002m	5.044m	0.040m	
CP1303-PA1	263590.234m	0.004m	212963.404m	0.005m	3.428m	0.041m	
CP1219	263356.076m	0.004m	203288.605m	0.005m	5.691m	0.041m	
CP1304-PA1	266055.770m	0.004m	209723.296m	0.005m	4.910m	0.041m	
CP1150	263519.888m	0.003m	216272.334m	0.004m	4.712m	0.040m	
CP1147	260883.538m	0.003m	223648.679m	0.002m	5.160m	0.040m	
CP1222	267929.297m	0.004m	195195.665m	0.003m	5.702m	0.041m	
CP1218	254257.289m	0.006m	204128.461m	0.008m	5.836m	0.045m	
CP1157	274602.397m	0.005m	197405.577m	0.005m	4.646m	0.042m	
CP1154	270597.890m	0.004m	203532.326m	0.005m	4.626m	0.041m	
CP1214	258552.405m	0.004m	209727.474m	0.005m	4.542m	0.041m	
CP1302-PA1	263764.807m	0.004m	210558.578m	0.005m	3.658m	0.041m	
CP1149	261817.648m	0.003m	219806.967m	0.003m	4.943m	0.040m	
CP1146	260193.518m	0.003m	224825.087m	0.002m	5.300m	0.000m	e
872 2625 1	258155.952m	0.000m	228620.379m	0.000m	6.059m	0.000m	N E e
CP1152	267746.884m	0.004m	209746.604m	0.006m	5.221m	0.041m	
CP1209	248978.316m	0.003m	225141.935m	0.003m	4.248m	0.040m	
CP1155	272629.763m	0.008m	203093.359m	0.009m	5.014m	0.000m	e
CP1301-PA1	263540.440m	0.003m	209508.910m	0.004m	4.112m	0.041m	
BRIDGE 2	247325.941m	0.004m	215720.426m	0.005m	5.841m	0.000m	e
CP1156	274302.098m	0.009m	201433.492m	0.009m	4.374m	0.043m	
CP1213	250476.771m	0.004m	210593.715m	0.005m	4.511m	0.041m	
Q 519	260436.580m	0.000m	156522.772m	0.000m	8.021m	0.000m	N E e
CP1085	267234.255m	0.005m	177137.884m	0.005m	6.127m	0.042m	
CP1090	278699.793m	0.004m	177424.797m	0.005m	7.457m	0.043m	
C 519	279549.558m	0.000m	162723.651m	0.000m	9.821m	0.000m	N E e

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1242	265849.899m	0.005m	183203.894m	0.005m	6.495m	0.042m	
CP1089	275919.732m	0.005m	175428.850m	0.007m	6.558m	0.044m	
CP1161	277790.908m	0.003m	190038.557m	0.003m	4.423m	0.041m	
Q 529	277729.330m	0.000m	180555.851m	0.000m	6.114m	0.000m	N E e
CP1158	274980.925m	0.006m	195792.765m	0.005m	4.161m	0.042m	
CP1223	266421.820m	0.005m	187188.282m	0.005m	6.876m	0.042m	
CP1160	276924.074m	0.004m	192395.701m	0.004m	4.759m	0.041m	
CP1083	262646.122m	0.004m	178621.044m	0.005m	6.653m	0.042m	
CP1087	269766.126m	0.004m	177129.836m	0.004m	6.334m	0.000m	e
CP1084	263844.892m	0.005m	178233.458m	0.006m	6.546m	0.042m	
CP1088	271440.790m	0.004m	176990.438m	0.005m	5.186m	0.042m	
AIRPORT	266342.151m	0.000m	194532.160m	0.000m	5.590m	0.000m	N E e
CP1091	279717.437m	0.004m	178296.560m	0.005m	7.191m	0.042m	
CP1159	275682.681m	0.004m	192603.477m	0.004m	4.858m	0.041m	
CP1224	274610.984m	0.003m	182844.543m	0.004m	5.056m	0.041m	
Y 530	235477.395m	0.000m	187565.573m	0.000m	7.285m	0.000m	N E e
CP1075	249232.489m	0.006m	189680.298m	0.007m	8.460m	0.044m	
CP1079	258316.969m	0.005m	185378.739m	0.005m	8.092m	0.042m	
CP1076	251390.209m	0.004m	187312.835m	0.005m	8.778m	0.042m	
CP1217	236530.723m	0.007m	202818.416m	0.009m	5.846m	0.045m	
CP1220	249537.104m	0.005m	196115.337m	0.005m	6.825m	0.042m	
CP1216	239881.662m	0.008m	209963.128m	0.008m	3.758m	0.045m	
CP1215	243939.083m	0.005m	205170.549m	0.006m	4.962m	0.000m	e
CP1068	232427.993m	0.005m	198001.578m	0.006m	7.394m	0.000m	e
CP1073	244229.939m	0.006m	192880.252m	0.007m	8.291m	0.043m	
CP1077	253474.151m	0.005m	187681.650m	0.005m	7.991m	0.042m	
CP1067	230641.976m	0.004m	199607.082m	0.005m	6.370m	0.042m	
CP1070	235603.698m	0.010m	195192.514m	0.013m	8.074m	0.053m	
CP1082	259835.679m	0.004m	178260.509m	0.005m	8.264m	0.042m	
CP1210	231003.213m	0.003m	209338.020m	0.004m	5.652m	0.041m	
CP1069	235593.853m	0.009m	197219.005m	0.011m	7.882m	0.000m	e
CP1072	240024.162m	0.010m	193582.668m	0.011m	7.514m	0.045m	
CP1074	246050.721m	0.005m	191310.456m	0.007m	8.257m	0.044m	

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1081	259898.143m	0.004m	181099.608m	0.005m	7.688m	0.042m	
CP1078	255092.571m	0.005m	187464.523m	0.005m	7.852m	0.000m	e
FDEM-BC1	220726.415m	0.002m	201021.764m	0.003m	5.722m	0.042m	
CP1071	238610.318m	0.007m	194231.905m	0.009m	7.775m	0.045m	
CP1080	258256.407m	0.005m	181140.604m	0.005m	8.299m	0.042m	
CP1221	259326.977m	0.008m	193619.719m	0.007m	6.573m	0.047m	
CP1086	265802.499m	0.007m	176835.150m	0.007m	6.481m	0.044m	
A 524	283835.218m	0.000m	187894.867m	0.000m	10.351m	0.000m	N E e
CP1057	221631.945m	0.005m	237089.257m	0.006m	4.247m	0.042m	
CP1207	230508.799m	0.004m	233380.337m	0.005m	3.351m	0.041m	
CP1058	221511.174m	0.006m	222467.819m	0.008m	5.054m	0.000m	e
CP1061	219843.977m	0.010m	214294.919m	0.013m	3.927m	0.048m	
S 410 X	223920.677m	0.000m	220806.048m	0.000m	5.595m	0.000m	N E e
CP1240	230414.186m	0.004m	219368.176m	0.004m	6.596m	0.041m	
CP1060	219742.944m	0.004m	210391.658m	0.005m	4.723m	0.043m	
CP1063	222489.697m	0.003m	205368.465m	0.003m	5.015m	0.042m	
Y 535	220251.954m	0.000m	202264.006m	0.000m	5.113m	0.000m	N E e
CP1066	228122.519m	0.004m	200548.729m	0.005m	8.108m	0.042m	
CP1065	227335.606m	0.003m	203754.048m	0.004m	5.579m	0.042m	
CP1059	221574.619m	0.006m	231477.496m	0.008m	5.008m	0.000m	e
CORNER AZ	221269.963m	0.006m	212627.236m	0.009m	7.517m	0.000m	e
CP1243	224638.866m	0.004m	211857.225m	0.004m	5.939m	0.042m	
CP1201	246957.529m	0.005m	239040.450m	0.006m	4.108m	0.041m	
CP1250	242164.775m	0.003m	240685.656m	0.004m	3.957m	0.040m	
Y 555	251108.557m	0.006m	245245.919m	0.005m	3.109m	0.000m	e
Star	289227.280m	0.000m	238596.444m	0.000m	10.612m	0.000m	N E e
CP1205	236850.603m	0.004m	235532.811m	0.005m	4.033m	0.000m	e
CP1208	235242.204m	0.004m	226215.003m	0.005m	4.008m	0.041m	
CP1203	228829.729m	0.004m	241171.637m	0.005m	4.125m	0.041m	
CP1053	236984.304m	0.004m	255205.615m	0.005m	7.791m	0.000m	e
CP1055	231460.364m	0.003m	251577.188m	0.004m	6.118m	0.042m	
FLGPS 69	229437.002m	0.000m	250704.019m	0.000m	5.799m	0.000m	N E e
CP1199	247004.583m	0.005m	248170.324m	0.005m	4.314m	0.041m	

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1054	226616.974m	0.003m	248662.045m	0.004m	6.130m	0.000m	e
CP1056	220673.151m	0.004m	246914.925m	0.005m	4.488m	0.000m	e
V 486	239168.673m	0.000m	234033.289m	0.000m	5.870m	0.000m	N E e
FDEM-S7	221874.703m	0.004m	246288.316m	0.005m	7.992m	0.042m	
CP1052	241796.689m	0.004m	255176.511m	0.005m	5.020m	0.041m	
CP1212	242489.730m	0.004m	216774.461m	0.005m	5.110m	0.040m	
CP1237	242321.583m	0.003m	231688.114m	0.003m	3.994m	0.040m	
CP1202	237868.238m	0.003m	246253.148m	0.003m	3.620m	0.041m	
CP1236	254232.652m	0.006m	247963.268m	0.006m	3.372m	0.042m	
CP1051	250416.139m	0.004m	255201.827m	0.004m	4.631m	0.000m	e
FDEM-PS5	260501.622m	0.004m	262848.257m	0.004m	7.411m	0.042m	
CP1050	259935.100m	0.003m	263398.067m	0.004m	6.986m	0.042m	
D 537	254164.649m	0.000m	267707.935m	0.000m	7.459m	0.000m	N E e
FDEM-BC2	220685.806m	0.003m	202100.194m	0.004m	5.141m	0.043m	
FISH	288108.561m	0.000m	168705.939m	0.000m	10.903m	0.000m	N E e
CP1097	289384.735m	0.004m	169393.456m	0.003m	12.172m	0.042m	
CP1163	282675.744m	0.003m	187820.238m	0.004m	5.787m	0.042m	
CP1233	314067.383m	0.006m	205625.195m	0.006m	7.829m	0.045m	
CP1182	311331.826m	0.006m	211979.330m	0.007m	5.859m	0.046m	
K 518	303908.929m	0.000m	166768.655m	0.000m	37.668m	0.000m	N E e
CP1102	300611.933m	0.008m	174502.673m	0.006m	11.092m	0.043m	
FLGPS 57	292962.375m	0.000m	188982.483m	0.000m	4.570m	0.000m	N E e
CP1171	293636.772m	0.002m	191573.240m	0.002m	5.032m	0.042m	
CP1173	295980.019m	0.005m	194768.813m	0.005m	5.234m	0.043m	
CP1174	296690.420m	0.006m	196846.700m	0.005m	4.702m	0.044m	
CP1178	305356.203m	0.007m	203796.941m	0.008m	5.970m	0.047m	
CP1177	302705.985m	0.009m	202139.977m	0.007m	9.064m	0.048m	
CP1181	309459.521m	0.004m	210941.767m	0.006m	5.495m	0.046m	
CP1225	288995.689m	0.004m	181515.432m	0.005m	9.752m	0.042m	
CP1227	293174.667m	0.003m	185198.004m	0.004m	6.769m	0.042m	
CP1172	295276.734m	0.003m	192916.211m	0.003m	5.093m	0.042m	
CP1176	300019.196m	0.009m	200664.938m	0.007m	5.276m	0.048m	
K 523	307199.188m	0.000m	207789.246m	0.000m	10.025m	0.000m	N E e

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1101	297378.955m	0.009m	172501.884m	0.007m	11.729m	0.044m	
CP1098	289185.901m	0.003m	172450.507m	0.003m	11.252m	0.042m	
CP1094	285602.045m	0.005m	172587.268m	0.005m	10.656m	0.043m	
CP1232	309804.090m	0.006m	202068.958m	0.007m	6.233m	0.046m	
CP1167	290111.190m	0.004m	187867.195m	0.004m	6.431m	0.042m	
CP1111	307304.757m	0.005m	188982.730m	0.005m	8.037m	0.043m	
CP1228	301703.543m	0.006m	180764.356m	0.006m	9.261m	0.043m	
CP1226	292332.503m	0.005m	174942.909m	0.004m	9.020m	0.042m	
CP1092	281129.404m	0.004m	182809.646m	0.006m	6.019m	0.043m	
CP1229	299095.514m	0.002m	187633.411m	0.003m	7.072m	0.042m	
CP1179	307369.599m	0.005m	205648.909m	0.007m	6.289m	0.047m	
CP1180	308961.851m	0.004m	208181.008m	0.006m	6.330m	0.046m	
CP1109	307652.368m	0.005m	185179.367m	0.005m	8.767m	0.043m	
CP1104	308805.652m	0.003m	175502.362m	0.004m	10.973m	0.043m	
CP1099	291633.860m	0.004m	172417.509m	0.003m	10.773m	0.042m	
CP1166	287507.351m	0.005m	187849.372m	0.005m	6.587m	0.042m	
CP1170	293641.669m	0.002m	189854.860m	0.002m	4.902m	0.042m	
CP1175	298404.140m	0.023m	198883.290m	0.010m	5.476m	0.078m	
CP1103	301296.995m	0.006m	175551.514m	0.006m	10.080m	0.043m	
CP1162	280471.252m	0.004m	187813.204m	0.005m	5.448m	0.043m	
CP1168	291410.992m	0.002m	188040.100m	0.003m	7.053m	0.041m	
CP1244	296819.250m	0.004m	180961.985m	0.004m	7.783m	0.042m	
CP1100	294097.469m	0.007m	173362.326m	0.005m	11.411m	0.044m	
CP1093	286631.135m	0.005m	176626.910m	0.006m	7.622m	0.043m	
CP1165	286468.236m	0.003m	187843.734m	0.003m	7.355m	0.041m	
CP1169	292733.883m	0.002m	188667.725m	0.003m	4.971m	0.041m	
CP1230	303358.642m	0.004m	192998.311m	0.004m	7.024m	0.042m	
CP1091a	279709.189m	0.004m	178424.390m	0.005m	7.102m	0.042m	
CP1096	289394.936m	0.004m	168499.506m	0.003m	12.888m	0.042m	
CP1095	286698.151m	0.005m	168354.242m	0.006m	12.611m	0.043m	
CP1164	283840.303m	0.002m	187827.045m	0.002m	5.252m	0.041m	
CP1231	305532.756m	0.008m	199398.417m	0.006m	9.410m	0.046m	
CP1110	308964.805m	0.006m	191762.325m	0.006m	7.915m	0.043m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
C 358	321598.848m	0.000m	194654.607m	0.000m	9.485m	0.000m	N E e
CP1112	311028.826m	0.007m	194809.559m	0.007m	7.144m	0.048m	
A 518	318411.989m	0.000m	167411.179m	0.000m	41.515m	0.000m	N E e
CP1106	315177.893m	0.003m	177122.910m	0.003m	10.665m	0.043m	
CP1118	322399.315m	0.005m	209871.611m	0.004m	9.058m	0.044m	
CP1185	316793.316m	0.005m	215094.331m	0.005m	6.342m	0.044m	
CP1187	317899.352m	0.008m	210430.668m	0.006m	5.015m	0.046m	
CP1115	319220.265m	0.006m	199568.679m	0.008m	9.236m	0.047m	
CP1114	317099.470m	0.008m	199590.297m	0.008m	7.971m	0.048m	
CP1186	317113.748m	0.007m	202834.908m	0.008m	7.229m	0.047m	
OKEEPORT RESET	324940.811m	0.000m	214629.896m	0.000m	9.419m	0.000m	N E e
CP1001	324691.351m	0.009m	221005.936m	0.009m	9.430m	0.051m	
CP1108	310141.104m	0.004m	183794.951m	0.004m	8.467m	0.043m	
B 529	318626.115m	0.000m	181588.303m	0.000m	9.691m	0.000m	N E e
CP1119	323003.673m	0.004m	213312.094m	0.004m	9.539m	0.045m	
CP1117	322399.410m	0.007m	206322.719m	0.006m	9.142m	0.045m	
CP1113	313633.484m	0.005m	197172.091m	0.006m	7.784m	0.046m	
CP1107	310630.242m	0.004m	180036.591m	0.005m	10.447m	0.043m	
CP1116	322222.005m	0.006m	202439.636m	0.008m	8.600m	0.047m	
CP1183	312076.183m	0.007m	213034.748m	0.006m	6.927m	0.046m	
CP1120	322996.396m	0.005m	216505.405m	0.005m	8.790m	0.045m	
CP1122	317327.243m	0.006m	216818.724m	0.005m	5.823m	0.044m	
CP1105	312789.174m	0.003m	175437.253m	0.003m	9.974m	0.043m	
CP1003	324573.785m	0.005m	216377.482m	0.005m	8.234m	0.046m	
CP1184	314439.715m	0.008m	214163.210m	0.006m	5.985m	0.046m	
S 191 W	316730.834m	0.000m	223471.672m	0.000m	12.324m	0.000m	N E e
CP1125	315434.960m	0.004m	226382.701m	0.003m	5.966m	0.044m	
CP1127	311806.560m	0.005m	230129.675m	0.007m	5.962m	0.044m	
CP1126	313640.850m	0.005m	228172.484m	0.004m	5.898m	0.044m	
CP1130	305359.173m	0.003m	233757.909m	0.003m	4.877m	0.042m	
CP1129	307761.366m	0.005m	233307.839m	0.006m	6.304m	0.044m	
CP1123	318383.179m	0.012m	220151.426m	0.008m	12.259m	0.049m	
CP1124	316956.853m	0.004m	223494.085m	0.003m	8.243m	0.044m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1190	298866.029m	0.003m	238452.182m	0.003m	5.852m	0.042m	
CP1021	298914.973m	0.003m	243821.795m	0.003m	7.474m	0.043m	
CP1188	313159.351m	0.006m	231350.837m	0.006m	7.775m	0.044m	
CP1016	309100.788m	0.005m	237422.053m	0.005m	8.763m	0.043m	
CP1007	319449.856m	0.006m	226763.716m	0.005m	8.685m	0.045m	
CP1010	315398.457m	0.014m	230307.854m	0.009m	8.212m	0.045m	
CP1128	310253.331m	0.006m	231076.643m	0.011m	6.015m	0.047m	
CP1131	302926.247m	0.004m	234593.648m	0.005m	6.285m	0.043m	
L 048	304992.825m	0.000m	233603.073m	0.000m	10.432m	0.000m	N E e
CP1132	301238.998m	0.003m	235331.177m	0.004m	5.307m	0.042m	
CP1134	295600.489m	0.003m	237510.083m	0.004m	5.843m	0.042m	
CP1019	303664.976m	0.004m	240776.176m	0.005m	7.783m	0.043m	
CP1121	323629.836m	0.016m	218328.244m	0.009m	7.335m	0.055m	
CP1011	316945.298m	0.005m	229947.305m	0.004m	8.839m	0.043m	
CP1020	300881.387m	0.003m	244041.481m	0.003m	8.463m	0.043m	
CP1017	308570.763m	0.004m	239230.545m	0.004m	9.075m	0.043m	
CP1006	319891.341m	0.008m	225427.533m	0.006m	8.880m	0.048m	
CP1004	323049.818m	0.009m	223909.328m	0.009m	10.131m	0.049m	
C T2	328112.862m	0.000m	241650.654m	0.000m	8.416m	0.000m	N E e
R 543	313483.214m	0.000m	251400.845m	0.000m	8.371m	0.000m	N E e
EDN 6 25	296800.930m	0.000m	254020.801m	0.000m	8.973m	0.000m	N E e
CP1002	323174.532m	0.022m	220946.390m	0.009m	9.032m	0.062m	
CP1008	318724.164m	0.005m	227380.312m	0.004m	11.354m	0.044m	
CP1133	299285.120m	0.004m	236102.611m	0.004m	5.341m	0.043m	
CP1135	292518.895m	0.005m	238443.725m	0.004m	5.871m	0.043m	
CP1012	315531.134m	0.006m	233563.549m	0.006m	9.299m	0.044m	
CP1018	308029.475m	0.005m	241194.059m	0.006m	9.599m	0.044m	
CP1014	311201.210m	0.007m	234524.759m	0.007m	9.346m	0.045m	
CP1015	310484.015m	0.008m	235627.336m	0.010m	8.851m	0.047m	
CP1189	305527.647m	0.003m	238574.326m	0.003m	7.988m	0.042m	
CP1009	316900.861m	0.005m	229089.589m	0.004m	8.562m	0.044m	
CP1013	313910.333m	0.008m	234742.274m	0.010m	9.532m	0.046m	
CP1022	295305.384m	0.004m	243801.218m	0.004m	7.917m	0.043m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1005	321683.217m	0.011m	225431.363m	0.012m	10.095m	0.054m	
CP1260	256940.252m	0.006m	212971.525m	0.007m	5.524m	0.043m	
CP1252	229369.398m	0.004m	211810.720m	0.004m	4.646m	0.041m	
CP1257	242512.586m	0.004m	226872.570m	0.004m	3.286m	0.042m	
CP1259	254580.321m	0.004m	226664.630m	0.005m	3.786m	0.041m	
CP1255	248903.153m	0.004m	217866.884m	0.004m	3.372m	0.041m	
CP1262	248841.363m	0.006m	206645.807m	0.007m	4.299m	0.044m	
CP1251	226538.436m	0.003m	207721.635m	0.004m	7.144m	0.041m	
CP1253	235989.165m	0.004m	214988.132m	0.005m	5.154m	0.041m	
CP1254	244763.711m	0.006m	212319.888m	0.006m	3.948m	0.042m	
CP1258	254588.967m	0.005m	221801.369m	0.005m	3.312m	0.041m	
CP1256	237685.967m	0.006m	221327.545m	0.005m	3.699m	0.044m	
CP1064	224900.664m	0.003m	204404.928m	0.003m	5.019m	0.042m	
CP1261	245011.623m	0.005m	221153.215m	0.004m	3.370m	0.042m	
CP1062	220079.018m	0.004m	208439.650m	0.004m	4.577m	0.042m	
MF 41	260006.785m	0.006m	289188.248m	0.006m	6.275m	0.000m	e
CP1041	260593.777m	0.005m	285047.634m	0.005m	4.834m	0.043m	
CP1029	275275.077m	0.003m	263543.851m	0.003m	7.228m	0.041m	
FLGPS 67	281458.826m	0.000m	274975.888m	0.000m	6.374m	0.000m	N E e
CP1033	274795.396m	0.006m	275104.113m	0.007m	6.361m	0.046m	
CP1248	271246.940m	0.003m	266889.782m	0.003m	6.439m	0.041m	
CP1246	270828.503m	0.007m	274103.920m	0.007m	5.829m	0.046m	
CP1042	260627.474m	0.004m	283564.344m	0.004m	4.991m	0.042m	
CP1238	266409.249m	0.004m	275955.590m	0.004m	5.870m	0.042m	
CP1046	259224.949m	0.006m	275461.838m	0.006m	4.579m	0.043m	
CP1196	260195.754m	0.006m	249975.415m	0.005m	3.728m	0.042m	
CP1030	275212.401m	0.004m	266862.039m	0.004m	6.418m	0.041m	
CP1034	275420.703m	0.006m	278619.674m	0.008m	6.356m	0.047m	
CP1038	263298.977m	0.004m	286524.128m	0.004m	5.290m	0.043m	
CP1043	259227.469m	0.005m	283651.408m	0.005m	5.059m	0.043m	
CP1239	267907.035m	0.003m	264318.738m	0.003m	5.584m	0.041m	
CP1235	263481.111m	0.005m	256865.270m	0.005m	4.569m	0.042m	
CP1048	259144.720m	0.003m	269807.346m	0.003m	5.413m	0.041m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP1037	268180.387m	0.004m	286048.541m	0.004m	5.916m	0.043m	
CP1044	259090.034m	0.005m	281413.216m	0.005m	4.710m	0.042m	
CP1047	259111.878m	0.005m	272987.467m	0.004m	4.476m	0.042m	
CP1049	259753.088m	0.003m	266567.203m	0.003m	7.448m	0.041m	
CP1032	275698.113m	0.007m	272629.813m	0.007m	6.611m	0.046m	
CP1040	262167.179m	0.005m	284999.527m	0.005m	5.025m	0.043m	
CP1249	264670.730m	0.006m	273112.892m	0.005m	6.054m	0.042m	
B 548	272244.699m	0.000m	287535.525m	0.000m	5.510m	0.000m	N E e
CP1036	269729.397m	0.004m	279602.429m	0.004m	6.239m	0.042m	
C 547	293995.187m	0.000m	257994.449m	0.000m	7.333m	0.000m	N E e
CP1025	286483.528m	0.006m	251251.088m	0.005m	7.919m	0.044m	
CP1194	269869.730m	0.004m	257007.875m	0.004m	4.058m	0.041m	
CP1245	282772.104m	0.005m	241722.894m	0.005m	3.575m	0.042m	
CP1136	287640.562m	0.005m	238547.271m	0.003m	5.415m	0.043m	
CP1191	284295.082m	0.005m	246447.221m	0.006m	4.991m	0.043m	
CP1027	278323.674m	0.005m	258653.294m	0.006m	6.561m	0.042m	
CP1024	290851.838m	0.007m	248316.175m	0.005m	7.550m	0.045m	
H 547	289264.171m	0.000m	264397.577m	0.000m	7.545m	0.000m	N E e
CP1026	280014.518m	0.004m	257976.467m	0.005m	6.658m	0.042m	
CP1023	290463.359m	0.005m	243280.057m	0.003m	7.244m	0.042m	
CP1028	275588.564m	0.004m	260995.392m	0.004m	6.748m	0.041m	
CP1206	277941.878m	0.005m	252887.181m	0.006m	4.909m	0.043m	
CP2000	263923.562m	0.004m	210537.410m	0.005m	3.184m	0.041m	
CP2005	263647.254m	0.004m	209403.552m	0.005m	4.064m	0.041m	
CP2009	263411.407m	0.005m	212963.056m	0.006m	3.613m	0.042m	
K 413	260625.448m	0.000m	266576.389m	0.000m	4.583m	0.000m	N E e
CP1031	275800.653m	0.006m	270280.939m	0.005m	6.321m	0.043m	
CP1035	274727.041m	0.005m	279797.046m	0.006m	6.216m	0.044m	
CP1039	262165.165m	0.005m	286461.896m	0.004m	4.600m	0.043m	
CP1195	267408.268m	0.004m	268844.870m	0.004m	6.566m	0.041m	
CP1045	259232.333m	0.005m	279336.035m	0.005m	5.747m	0.042m	
CP3000	265231.091m	0.005m	276755.366m	0.005m	5.019m	0.043m	
CP3004	252569.981m	0.006m	244233.772m	0.006m	5.002m	0.043m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP3003	244542.936m	0.014m	249887.037m	0.009m	4.580m	0.055m	
CP3005	232079.518m	0.010m	238884.673m	0.007m	4.249m	0.043m	
CP3006	248150.710m	0.004m	228821.892m	0.004m	4.759m	0.041m	
CP3002	270699.512m	0.006m	240111.866m	0.007m	3.306m	0.043m	
CP3008	237703.941m	0.007m	217809.885m	0.006m	6.430m	0.043m	
CP3010	256969.586m	0.007m	208913.835m	0.007m	5.081m	0.044m	
CP3001	270759.895m	0.007m	252441.715m	0.008m	3.058m	0.044m	
CP5116	260229.568m	0.005m	233762.983m	0.005m	3.952m	0.041m	
CP5112	261833.491m	0.010m	233040.058m	0.008m	4.729m	0.043m	
CP5102	257399.428m	0.003m	231129.139m	0.004m	3.405m	0.041m	
CP5101	258274.895m	0.004m	231426.338m	0.005m	3.027m	0.042m	
CP5103	258886.869m	0.005m	231541.934m	0.005m	3.269m	0.042m	
CP5107	259632.980m	0.005m	231563.744m	0.006m	3.583m	0.043m	
CP5105	258661.960m	0.005m	232804.802m	0.006m	4.077m	0.043m	
CP5106	259637.366m	0.006m	231208.004m	0.006m	4.431m	0.043m	
CP5114A	260252.951m	0.005m	231462.841m	0.005m	4.993m	0.042m	
CP5114B	260300.380m	0.006m	232062.184m	0.005m	3.763m	0.043m	
CP5117	261065.342m	0.004m	231440.250m	0.004m	4.408m	0.042m	
CP5108	262258.952m	0.004m	231457.981m	0.004m	4.018m	0.041m	
CP5109	261767.660m	0.004m	230982.729m	0.004m	4.706m	0.041m	
CP5119	261476.929m	0.005m	236217.534m	0.004m	3.009m	0.041m	
CP5110	259442.955m	0.007m	231996.923m	0.007m	3.431m	0.045m	
CP5115	260228.712m	0.008m	232858.271m	0.006m	3.972m	0.045m	
CP5118	256510.197m	0.006m	235951.425m	0.005m	4.265m	0.042m	
CP5113	259813.160m	0.006m	234433.336m	0.006m	4.294m	0.042m	
CP5111	258664.561m	0.005m	236646.707m	0.005m	3.903m	0.042m	
CP5104	265971.287m	0.003m	233217.666m	0.003m	3.204m	0.040m	
CP5134	265636.188m	0.005m	204619.304m	0.006m	6.456m	0.042m	
CP5132	266294.831m	0.005m	204121.870m	0.006m	5.621m	0.042m	
CP5131	266170.035m	0.005m	204868.298m	0.005m	5.549m	0.042m	
CP5137	269183.896m	0.005m	206011.778m	0.006m	4.426m	0.042m	
CP5133	266258.567m	0.005m	205561.203m	0.006m	5.485m	0.042m	
CP1305	266592.284m	0.005m	207324.231m	0.006m	5.151m	0.042m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP5136	268079.905m	0.005m	208978.334m	0.005m	6.449m	0.042m	
CP5135	268117.880m	0.005m	208592.466m	0.005m	4.513m	0.042m	
CP5141	276487.736m	0.005m	189661.658m	0.004m	4.221m	0.042m	
CP5138	274980.063m	0.008m	189929.556m	0.006m	3.563m	0.044m	
CP5143	276949.213m	0.004m	191375.711m	0.004m	4.918m	0.042m	
CP5140	276819.932m	0.006m	190349.342m	0.006m	4.177m	0.044m	
CP5142	277633.989m	0.005m	191234.736m	0.005m	6.059m	0.042m	
CP5139	275261.063m	0.008m	189391.286m	0.006m	4.127m	0.044m	
CP5146	291724.051m	0.003m	186686.232m	0.004m	5.509m	0.042m	
CP5145	292414.895m	0.003m	188299.683m	0.003m	4.767m	0.042m	
CP5144	291723.051m	0.003m	187254.911m	0.004m	5.484m	0.042m	
CP5148	293606.289m	0.003m	190455.235m	0.003m	4.539m	0.042m	
CP5147	293488.521m	0.003m	189646.613m	0.003m	5.021m	0.042m	
CP5149	293423.087m	0.007m	190962.801m	0.007m	5.474m	0.044m	
CP5152	295141.281m	0.004m	192687.337m	0.003m	5.010m	0.042m	
CP5150	294331.003m	0.005m	192098.534m	0.004m	5.020m	0.044m	
CP5151	294781.473m	0.005m	192400.495m	0.004m	5.160m	0.044m	
CP5154	296016.762m	0.005m	194810.363m	0.004m	5.201m	0.043m	
CP5153	295462.118m	0.004m	193408.399m	0.004m	4.696m	0.043m	
CP5155	296321.643m	0.007m	195862.538m	0.006m	5.215m	0.043m	
CP5120	256634.394m	0.003m	268081.275m	0.004m	3.918m	0.042m	
CP5129	260626.156m	0.003m	267392.306m	0.004m	4.850m	0.042m	
CP5130	263463.906m	0.005m	279515.841m	0.005m	5.649m	0.043m	
CP5122	268391.694m	0.007m	293555.367m	0.006m	4.576m	0.045m	
CP5123	263364.796m	0.013m	293347.979m	0.011m	4.751m	0.062m	
CP5121	275964.229m	0.021m	293566.710m	0.014m	3.130m	0.049m	
CP5128	272814.560m	0.008m	271814.346m	0.009m	6.426m	0.054m	
CP5127	275228.291m	0.005m	265251.665m	0.004m	7.317m	0.042m	
CP5156	309110.237m	0.004m	210109.572m	0.006m	5.418m	0.046m	
CP5157	310505.670m	0.004m	210656.510m	0.006m	5.946m	0.046m	
CP5158	310367.215m	0.006m	211629.948m	0.007m	5.497m	0.046m	
CP5159	311422.914m	0.005m	212148.758m	0.006m	5.154m	0.046m	
CP5161	311633.751m	0.006m	213097.082m	0.007m	5.901m	0.046m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP5162	311961.857m	0.006m	213073.599m	0.007m	6.102m	0.046m	
CP5160	311658.127m	0.006m	212486.184m	0.007m	6.617m	0.046m	
CP5163	311708.849m	0.006m	213430.982m	0.007m	5.885m	0.046m	
CP5165	312302.605m	0.006m	213003.532m	0.007m	6.728m	0.046m	
CP5164	311918.042m	0.007m	213433.673m	0.007m	5.739m	0.046m	
CP5166	312385.027m	0.007m	212666.181m	0.007m	5.858m	0.046m	
CP5167	312484.562m	0.008m	213190.527m	0.007m	5.626m	0.047m	
CP5170	313414.563m	0.008m	213722.724m	0.007m	4.449m	0.047m	
CP5169	313210.509m	0.008m	213630.182m	0.008m	4.152m	0.048m	
CP5168	313048.149m	0.008m	213376.036m	0.008m	4.746m	0.048m	
CP5173	314122.807m	0.009m	214023.337m	0.008m	5.309m	0.048m	
CP5171	313576.108m	0.009m	213663.621m	0.008m	5.419m	0.048m	
CP5172	313737.056m	0.009m	213767.526m	0.008m	5.867m	0.048m	
CP5175	314672.877m	0.010m	214286.128m	0.008m	5.789m	0.049m	
CP5174	314408.525m	0.010m	214335.887m	0.008m	5.101m	0.049m	
CP5190	321143.496m	0.007m	216792.554m	0.006m	7.857m	0.046m	
CP5191	320986.968m	0.008m	216315.525m	0.007m	7.621m	0.048m	
CP5188	320669.458m	0.007m	216918.591m	0.006m	7.217m	0.046m	
CP5189	320822.071m	0.008m	216816.136m	0.007m	7.739m	0.047m	
CP5186	319917.714m	0.008m	216869.466m	0.007m	5.774m	0.046m	
CP5185	319639.494m	0.007m	215887.514m	0.006m	5.851m	0.046m	
CP5187	320141.601m	0.008m	216925.886m	0.007m	6.782m	0.046m	
CP5231	321603.057m	0.007m	214471.220m	0.005m	8.602m	0.046m	
CP5195	321752.381m	0.006m	215973.377m	0.005m	8.763m	0.046m	
CP5227	322398.821m	0.006m	213997.546m	0.005m	9.270m	0.046m	
CP5230	322383.775m	0.007m	214608.734m	0.006m	8.986m	0.047m	
CP5229	322398.682m	0.007m	212939.353m	0.005m	9.500m	0.047m	
CP5228	323246.654m	0.007m	213867.731m	0.005m	9.408m	0.047m	
CP5222	325356.531m	0.009m	213133.638m	0.008m	9.326m	0.050m	
CP5224	323956.606m	0.008m	211798.520m	0.006m	9.772m	0.049m	
CP5223	325426.462m	0.008m	211807.559m	0.006m	10.127m	0.049m	
CP5226	324821.935m	0.009m	210294.414m	0.007m	9.342m	0.051m	
CP5225	325420.037m	0.009m	209209.598m	0.007m	9.661m	0.051m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP5221	326401.823m	0.014m	213139.203m	0.014m	10.006m	0.055m	
CP5219	326387.773m	0.009m	213639.056m	0.008m	10.333m	0.051m	
CP5220	324864.897m	0.011m	213648.198m	0.009m	9.438m	0.051m	
CP5217	326383.779m	0.009m	214120.367m	0.008m	10.274m	0.051m	
CP5216	325633.137m	0.009m	214603.793m	0.008m	9.933m	0.051m	
CP5218	325618.773m	0.010m	214124.560m	0.009m	9.982m	0.051m	
CP5214	325641.682m	0.008m	214995.261m	0.007m	9.479m	0.049m	
CP5213	326393.727m	0.009m	214993.289m	0.009m	10.180m	0.052m	
CP5215	326382.803m	0.009m	214604.066m	0.009m	9.679m	0.053m	
CP5212	326241.601m	0.009m	215654.308m	0.009m	9.456m	0.051m	
CP5210	325477.626m	0.007m	216139.441m	0.006m	8.731m	0.048m	
CP5211	326245.860m	0.010m	216878.266m	0.008m	8.466m	0.050m	
CP5207	324771.542m	0.006m	216728.258m	0.005m	8.069m	0.047m	
CP5208	324810.544m	0.007m	216091.833m	0.006m	8.607m	0.047m	
CP5209	325470.958m	0.007m	216759.323m	0.006m	8.282m	0.048m	
CP5205	324147.016m	0.006m	216648.526m	0.005m	8.679m	0.047m	
CP5206	324061.504m	0.007m	216060.345m	0.006m	8.429m	0.047m	
CP5204	323769.414m	0.008m	216766.919m	0.007m	8.129m	0.050m	
CP5202	323393.951m	0.008m	216824.505m	0.007m	8.213m	0.050m	
CP5203	323404.249m	0.006m	216119.065m	0.006m	9.011m	0.046m	
CP5200	322878.928m	0.006m	216829.418m	0.005m	8.331m	0.045m	
CP5201	322852.073m	0.007m	216373.430m	0.006m	8.652m	0.046m	
CP5199	322521.860m	0.007m	216165.452m	0.006m	8.899m	0.046m	
CP5197	322022.726m	0.006m	216391.705m	0.005m	8.658m	0.045m	
CP5198	322435.187m	0.007m	216821.913m	0.006m	8.361m	0.046m	
CP5196	322141.710m	0.006m	216958.135m	0.006m	7.894m	0.046m	
CP5194	321678.573m	0.006m	216392.703m	0.006m	8.344m	0.046m	
CP5192	321501.529m	0.007m	216876.276m	0.006m	7.188m	0.047m	
CP5193	321687.479m	0.007m	216743.354m	0.006m	8.156m	0.047m	
CP5182	319088.973m	0.007m	216829.864m	0.007m	5.578m	0.046m	
CP5181	318529.555m	0.007m	216888.588m	0.006m	5.120m	0.045m	
CP5179	317926.827m	0.007m	217502.900m	0.006m	4.311m	0.046m	
CP5183	319214.620m	0.007m	216657.117m	0.006m	5.857m	0.046m	

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Network Adjustment Report

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP5180	318026.504m	0.007m	217097.477m	0.006m	4.329m	0.045m	
CP5184	318935.058m	0.007m	215450.083m	0.007m	5.182m	0.046m	
CP5177	317873.781m	0.006m	216812.823m	0.005m	4.678m	0.045m	
CP5178	317839.730m	0.008m	217141.550m	0.006m	4.513m	0.047m	
CP5125	301796.775m	0.007m	243804.776m	0.006m	9.513m	0.044m	
CP5126	297454.323m	0.028m	253333.325m	0.021m	10.144m	0.075m	
CP5124	306945.926m	0.005m	240159.412m	0.004m	8.986m	0.043m	
CP5176	318009.684m	0.007m	215426.855m	0.005m	4.852m	0.045m	
CP5345	313729.481m	0.007m	235662.101m	0.007m	8.869m	0.045m	
CP5300	286725.895m	0.012m	244025.946m	0.013m	5.018m	0.062m	
CP5341	265054.916m	0.010m	236248.973m	0.009m	3.042m	0.048m	
CP5343	274754.947m	0.011m	243258.325m	0.011m	3.947m	0.055m	
CP5301	254261.702m	0.024m	257797.853m	0.017m	3.967m	0.055m	
CP5342	265044.970m	0.021m	254606.741m	0.015m	3.424m	0.054m	
CP5337	259776.665m	0.046m	245915.185m	0.024m	2.707m	0.059m	
CP5338	253291.106m	0.011m	235824.472m	0.009m	2.790m	0.047m	
CP5316	239760.919m	0.006m	233560.164m	0.007m	4.243m	0.043m	
CP5339	253650.651m	0.010m	228711.256m	0.009m	3.670m	0.047m	
CP5334	238644.819m	0.018m	241620.523m	0.011m	3.034m	0.055m	
CP5336	228528.311m	0.006m	233350.353m	0.007m	3.929m	0.043m	
CP5340	256983.766m	0.009m	222613.206m	0.007m	3.533m	0.045m	
CP5302	231464.461m	0.009m	251606.840m	0.011m	3.143m	0.047m	
CP5333	224983.232m	0.006m	243935.766m	0.007m	4.426m	0.044m	
CP5327	247334.940m	0.009m	215679.153m	0.008m	4.128m	0.045m	
CP5317	234392.183m	0.010m	218533.812m	0.008m	3.976m	0.047m	
CP5328	245578.227m	0.008m	205194.232m	0.007m	5.621m	0.044m	
CP5330	249369.665m	0.014m	192098.748m	0.012m	7.674m	0.052m	
CP5329	245718.066m	0.011m	201072.129m	0.011m	5.450m	0.051m	
CP5332	249756.084m	0.011m	199232.256m	0.010m	5.856m	0.050m	
CP5331	249474.900m	0.011m	195436.254m	0.011m	6.842m	0.050m	
CP5315	232719.437m	0.012m	204690.157m	0.011m	5.074m	0.047m	
CP5318	238267.280m	0.012m	201962.728m	0.011m	5.626m	0.046m	
CP5326	237474.270m	0.017m	205308.473m	0.021m	4.396m	0.056m	

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Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
CP5314	232586.077m	0.008m	190270.946m	0.008m	7.600m	0.045m	
CP5322	237974.102m	0.008m	187531.132m	0.008m	7.403m	0.045m	
CP5320	237117.660m	0.011m	192253.261m	0.010m	7.430m	0.050m	
CP5321	235499.519m	0.007m	189523.771m	0.008m	6.922m	0.045m	
CP5319	237348.693m	0.017m	197156.840m	0.017m	7.062m	0.065m	
CP5323	239262.656m	0.019m	190757.502m	0.016m	7.449m	0.064m	
CP5324	239221.277m	0.019m	191355.574m	0.016m	7.227m	0.065m	
CP5306	223279.149m	0.006m	203947.682m	0.006m	5.447m	0.043m	
CP5313	229819.851m	0.006m	200081.340m	0.006m	6.010m	0.043m	
CP5303	226547.912m	0.006m	207544.754m	0.006m	4.301m	0.043m	
CP5304	225458.985m	0.006m	206947.275m	0.006m	4.518m	0.043m	
CP5307	219597.133m	0.006m	203897.837m	0.007m	4.787m	0.045m	
CP5312	221496.979m	0.007m	199782.279m	0.007m	5.619m	0.045m	
CP5305	224531.361m	0.006m	206983.074m	0.006m	4.551m	0.043m	
CP5308	219608.276m	0.007m	205137.815m	0.007m	5.338m	0.044m	
CP5310	222145.172m	0.007m	209572.886m	0.007m	4.188m	0.045m	
CP5309	219706.789m	0.005m	210419.722m	0.005m	4.717m	0.043m	
CP5311	223309.097m	0.006m	208401.054m	0.006m	3.967m	0.043m	

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Network Adjustment Report

Adjusted Geodetic Coordinates

Errors are reported using 1.96σ.

Point Name	Latitude	N error	Longitude	E error	Height	h error	Fix
CP1204	26°34'36.59775"N	0.003m	80°41'27.72794"W	0.003m	-21.561m	0.012m	
CP1200	26°38'32.12944"N	0.003m	80°40'17.32106"W	0.004m	-20.732m	0.014m	
CP1143	26°43'32.82240"N	0.002m	80°42'01.25855"W	0.003m	-21.353m	0.010m	
CP1141	26°45'02.22633"N	0.002m	80°40'56.49772"W	0.002m	-21.498m	0.010m	e
CP1198	26°38'42.40180"N	0.005m	80°35'05.30729"W	0.005m	-19.203m	0.017m	
G 489	26°48'48.07643"N	0.000m	80°41'13.99779"W	0.000m	-18.441m	0.014m	Lat Long e
CP1139	26°47'53.03568"N	0.003m	80°41'39.47048"W	0.004m	-20.790m	0.015m	
CP1144	26°42'19.99263"N	0.002m	80°43'05.08550"W	0.003m	-19.456m	0.013m	
CP1142	26°43'59.17605"N	0.002m	80°41'02.56450"W	0.003m	-20.742m	0.010m	
LICAN	26°46'34.73890"N	0.000m	80°41'36.79149"W	0.000m	-14.593m	0.012m	Lat Long e
CP1138	26°49'30.43351"N	0.004m	80°39'58.95674"W	0.006m	-14.198m	0.014m	e
CP1137	26°51'49.46552"N	0.005m	80°37'52.89115"W	0.007m	-19.961m	0.015m	e
CP1140	26°46'08.32068"N	0.002m	80°41'20.36833"W	0.002m	-21.617m	0.012m	
CP1145	26°40'57.82561"N	0.003m	80°43'49.85472"W	0.004m	-12.833m	0.012m	
CP1247	26°45'43.25882"N	0.002m	80°37'38.20849"W	0.003m	-21.938m	0.012m	
700-93-06-B08	26°49'39.86965"N	0.005m	80°34'58.96615"W	0.006m	-21.355m	0.013m	
CP1241	26°41'48.39675"N	0.003m	80°38'08.96420"W	0.004m	-20.665m	0.011m	
CP1192	26°49'26.37441"N	0.005m	80°32'53.79566"W	0.006m	-21.897m	0.014m	
FDEM-PB1	26°43'24.17468"N	0.002m	80°39'52.62569"W	0.002m	-21.437m	0.009m	
S 2 27	26°42'01.72080"N	0.000m	80°42'58.41623"W	0.000m	-11.761m	0.013m	Lat Long e
CP1193	26°48'45.47821"N	0.004m	80°36'46.50705"W	0.005m	-20.534m	0.012m	
CP1234	26°45'51.44808"N	0.004m	80°29'57.16206"W	0.004m	-20.211m	0.013m	e
CP1197	26°43'34.42877"N	0.004m	80°34'43.70201"W	0.004m	-21.143m	0.013m	
C 414	26°41'40.62380"N	0.000m	80°46'22.23954"W	0.000m	-13.165m	0.010m	Lat Long e
CP1211	26°38'18.56525"N	0.003m	80°49'46.46575"W	0.003m	-20.388m	0.010m	e
CP1153	26°45'44.87636"N	0.003m	80°55'22.61182"W	0.004m	-17.616m	0.012m	
CP1305-PA1	26°44'23.76650"N	0.003m	80°55'34.93965"W	0.004m	-19.633m	0.013m	
LO 7	26°43'41.79904"N	0.000m	80°51'09.15656"W	0.000m	-17.817m	0.014m	Lat Long e
CP1151	26°44'23.71536"N	0.003m	80°52'40.83271"W	0.004m	-19.536m	0.014m	
CP1148	26°41'53.65346"N	0.002m	80°47'03.01165"W	0.002m	-19.912m	0.010m	
CP1303-PA1	26°42'46.07379"N	0.004m	80°52'10.97230"W	0.005m	-21.423m	0.014m	
CP1219	26°42'38.66670"N	0.004m	80°58'01.01736"W	0.005m	-19.004m	0.014m	

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Point Name	Latitude	N error	Longitude	E error	Height	h error	Fix
CP1304-PA1	26°44'06.28080"N	0.004m	80°54'08.13376"W	0.005m	-19.909m	0.013m	
CP1150	26°42'43.66410"N	0.003m	80°50'11.25584"W	0.004m	-20.187m	0.012m	
CP1147	26°41'17.62409"N	0.003m	80°45'44.55392"W	0.002m	-19.812m	0.010m	
CP1222	26°45'07.24900"N	0.004m	81°02'53.88487"W	0.003m	-18.904m	0.015m	
CP1218	26°37'43.00851"N	0.006m	80°57'30.73809"W	0.008m	-18.861m	0.023m	
CP1157	26°48'44.09801"N	0.005m	81°01'33.95039"W	0.005m	-20.062m	0.017m	
CP1154	26°46'33.97302"N	0.004m	80°57'52.12637"W	0.005m	-20.132m	0.013m	
CP1214	26°40'02.47251"N	0.004m	80°54'08.19067"W	0.005m	-20.234m	0.014m	
CP1302-PA1	26°42'51.81869"N	0.004m	80°53'37.97569"W	0.005m	-21.156m	0.014m	
CP1149	26°41'48.18984"N	0.003m	80°48'03.46708"W	0.003m	-19.989m	0.011m	
CP1146	26°40'55.13032"N	0.003m	80°45'02.04872"W	0.002m	-19.663m	0.010m	e
872 2625 1	26°39'48.66429"N	0.000m	80°42'44.93606"W	0.000m	-18.929m	0.011m	Lat Long e
CP1152	26°45'01.22957"N	0.004m	80°54'07.24317"W	0.006m	-19.616m	0.014m	
CP1209	26°34'50.69194"N	0.003m	80°44'51.38906"W	0.003m	-20.666m	0.010m	
CP1155	26°47'39.99808"N	0.008m	80°58'07.99943"W	0.009m	-19.785m	0.019m	e
CP1301-PA1	26°42'44.55527"N	0.003m	80°54'15.96019"W	0.004m	-20.684m	0.013m	
BRIDGE 2	26°33'57.49054"N	0.004m	80°50'31.94765"W	0.005m	-18.997m	0.012m	e
CP1156	26°48'34.34652"N	0.009m	80°59'08.09099"W	0.009m	-20.397m	0.020m	
CP1213	26°35'40.04447"N	0.004m	80°53'37.10476"W	0.005m	-20.262m	0.013m	
Q 519	26°41'01.39815"N	0.000m	81°26'12.63790"W	0.000m	-16.419m	0.018m	Lat Long e
CP1085	26°44'44.02408"N	0.005m	81°13'47.40814"W	0.005m	-18.327m	0.016m	
CP1090	26°50'56.58513"N	0.004m	81°13'37.76616"W	0.005m	-17.058m	0.018m	
C 519	26°51'23.06176"N	0.000m	81°22'30.38541"W	0.000m	-14.606m	0.018m	Lat Long e
CP1242	26°43'59.35095"N	0.005m	81°10'07.80626"W	0.005m	-17.987m	0.015m	
CP1089	26°49'26.13331"N	0.005m	81°14'49.87086"W	0.007m	-17.923m	0.021m	
CP1161	26°50'27.58205"N	0.003m	81°06'00.81909"W	0.003m	-20.221m	0.014m	
Q 529	26°50'25.22203"N	0.000m	81°11'44.29295"W	0.000m	-18.405m	0.014m	Lat Long e
CP1158	26°48'56.38330"N	0.006m	81°02'32.35881"W	0.005m	-20.528m	0.018m	
CP1223	26°44'18.08562"N	0.005m	81°07'43.64315"W	0.005m	-17.635m	0.016m	
CP1160	26°49'59.46972"N	0.004m	81°04'35.42080"W	0.004m	-19.908m	0.015m	
CP1083	26°42'15.02655"N	0.004m	81°12'53.45106"W	0.005m	-17.801m	0.017m	
CP1087	26°46'06.29095"N	0.004m	81°13'47.86496"W	0.004m	-18.129m	0.015m	e
CP1084	26°42'53.95673"N	0.005m	81°13'07.54753"W	0.006m	-17.907m	0.017m	
CP1088	26°47'00.69697"N	0.004m	81°13'53.02123"W	0.005m	-19.281m	0.017m	
AIRPORT	26°44'15.66909"N	0.000m	81°03'17.87453"W	0.000m	-19.006m	0.016m	Lat Long e

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CP1091	26°51'29.70046"N	0.004m	81°13'06.25100"W	0.005m	-17.341m	0.017m	
CP1159	26°49'19.13761"N	0.004m	81°04'27.86900"W	0.004m	-19.793m	0.015m	
CP1224	26°48'44.00706"N	0.003m	81°10'21.24028"W	0.004m	-19.471m	0.015m	
Y 530	26°27'32.60152"N	0.000m	81°07'28.89818"W	0.000m	-17.340m	0.018m	Lat Long e
CP1075	26°34'59.62045"N	0.006m	81°06'12.95504"W	0.007m	-16.111m	0.021m	
CP1079	26°39'54.67008"N	0.005m	81°08'48.79063"W	0.005m	-16.409m	0.016m	
CP1076	26°36'09.66324"N	0.004m	81°07'38.59282"W	0.005m	-15.767m	0.016m	
CP1217	26°28'07.01452"N	0.007m	80°58'18.24326"W	0.009m	-18.872m	0.022m	
CP1220	26°35'09.63499"N	0.005m	81°02'20.39552"W	0.005m	-17.794m	0.016m	
CP1216	26°29'55.78476"N	0.008m	80°54'00.19499"W	0.008m	-21.009m	0.023m	
CP1215	26°32'07.71887"N	0.005m	80°56'53.21324"W	0.006m	-19.767m	0.016m	e
CP1068	26°25'53.70388"N	0.005m	81°01'12.12844"W	0.006m	-17.331m	0.016m	e
CP1073	26°32'17.13946"N	0.006m	81°04'17.20767"W	0.007m	-16.321m	0.019m	
CP1077	26°37'17.38971"N	0.005m	81°07'25.33445"W	0.005m	-16.548m	0.016m	
CP1067	26°24'55.67303"N	0.004m	81°00'14.17948"W	0.005m	-18.372m	0.017m	
CP1070	26°27'36.87227"N	0.010m	81°02'53.55804"W	0.013m	-16.604m	0.036m	
CP1082	26°40'43.68682"N	0.004m	81°13'06.32036"W	0.005m	-16.192m	0.017m	
CP1210	26°25'07.30115"N	0.003m	80°54'23.00331"W	0.004m	-19.128m	0.014m	
CP1069	26°27'36.57183"N	0.009m	81°01'40.39836"W	0.011m	-16.816m	0.022m	e
CP1072	26°30'00.48886"N	0.010m	81°03'51.75601"W	0.011m	-17.126m	0.024m	
CP1074	26°33'16.27221"N	0.005m	81°05'13.96273"W	0.007m	-16.336m	0.020m	
CP1081	26°40'45.86408"N	0.004m	81°11'23.63360"W	0.005m	-16.782m	0.016m	
CP1078	26°38'09.97092"N	0.005m	81°07'33.24168"W	0.005m	-16.679m	0.016m	e
FDEM-BC1	26°19'33.46839"N	0.002m	80°59'23.15529"W	0.003m	-19.089m	0.017m	
CP1071	26°29'14.55726"N	0.007m	81°03'28.28641"W	0.009m	-16.877m	0.022m	
CP1080	26°39'52.52082"N	0.005m	81°11'22.06262"W	0.005m	-16.174m	0.017m	
CP1221	26°40'27.70987"N	0.008m	81°03'50.76701"W	0.007m	-17.991m	0.026m	
CP1086	26°43'57.48445"N	0.007m	81°13'58.26962"W	0.007m	-17.969m	0.021m	
A 524	26°53'43.91516"N	0.000m	81°07'18.67723"W	0.000m	-14.373m	0.014m	Lat Long e
CP1057	26°20'01.16142"N	0.005m	80°37'42.48296"W	0.006m	-20.600m	0.017m	
CP1207	26°24'49.93673"N	0.004m	80°39'55.40205"W	0.005m	-21.535m	0.014m	
CP1058	26°19'58.33430"N	0.006m	80°46'29.76621"W	0.008m	-19.738m	0.018m	e
CP1061	26°19'04.53761"N	0.010m	80°51'24.56276"W	0.013m	-20.861m	0.028m	
S 410 X	26°21'16.72086"N	0.000m	80°47'29.55232"W	0.000m	-19.209m	0.020m	Lat Long e
CP1240	26°24'47.79696"N	0.004m	80°48'21.06160"W	0.004m	-18.227m	0.015m	

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CP1060	26°19'01.37588"N	0.004m	80°53'45.30681"W	0.005m	-20.075m	0.018m	
CP1063	26°20'30.73105"N	0.003m	80°56'46.38732"W	0.003m	-19.788m	0.016m	
Y 535	26°19'18.04568"N	0.000m	80°58'38.36321"W	0.000m	-19.701m	0.017m	Lat Long e
CP1066	26°23'33.80415"N	0.004m	80°59'40.20152"W	0.005m	-16.658m	0.017m	
CP1065	26°23'08.21626"N	0.003m	80°57'44.56000"W	0.004m	-19.201m	0.016m	
CP1059	26°19'59.78350"N	0.006m	80°41'04.85731"W	0.008m	-19.807m	0.019m	e
CORNER AZ	26°19'50.93136"N	0.006m	80°52'24.64457"W	0.009m	-17.287m	0.019m	e
CP1243	26°21'40.42687"N	0.004m	80°52'52.30035"W	0.004m	-18.858m	0.015m	
CP1201	26°33'43.89418"N	0.005m	80°36'29.33818"W	0.006m	-20.910m	0.015m	
CP1250	26°31'07.99564"N	0.003m	80°35'30.44391"W	0.004m	-21.050m	0.012m	
Y 555	26°35'58.10684"N	0.006m	80°32'44.58701"W	0.005m	-22.032m	0.015m	e
Star	26°56'37.37697"N	0.000m	80°36'40.71721"W	0.000m	-15.409m	0.016m	Lat Long e
CP1205	26°28'15.81830"N	0.004m	80°38'37.09292"W	0.005m	-20.925m	0.014m	e
CP1208	26°27'24.28439"N	0.004m	80°44'13.62643"W	0.005m	-20.865m	0.014m	
CP1203	26°23'54.64300"N	0.004m	80°35'14.43638"W	0.005m	-20.801m	0.015m	
CP1053	26°28'17.89982"N	0.004m	80°26'46.81021"W	0.005m	-17.321m	0.015m	e
CP1055	26°25'18.90128"N	0.003m	80°28'58.61111"W	0.004m	-18.938m	0.017m	
FLGPS 69	26°24'13.26861"N	0.000m	80°29'30.41036"W	0.000m	-19.219m	0.015m	Lat Long e
CP1199	26°33'44.40977"N	0.005m	80°30'59.44746"W	0.005m	-20.809m	0.015m	
CP1054	26°22'41.89259"N	0.003m	80°30'44.47517"W	0.004m	-18.842m	0.015m	e
CP1056	26°19'28.96650"N	0.004m	80°31'48.28289"W	0.005m	-20.478m	0.017m	e
V 486	26°29'31.27310"N	0.000m	80°39'31.00980"W	0.000m	-19.072m	0.018m	Lat Long e
FDEM-S7	26°20'08.08309"N	0.004m	80°32'10.72182"W	0.005m	-16.931m	0.017m	
CP1052	26°30'54.27104"N	0.004m	80°26'47.11207"W	0.005m	-20.162m	0.015m	
CP1212	26°31'20.30004"N	0.004m	80°49'54.09001"W	0.005m	-19.715m	0.012m	
CP1237	26°31'13.91810"N	0.003m	80°40'55.41434"W	0.003m	-20.944m	0.011m	
CP1202	26°28'47.77307"N	0.003m	80°32'09.91304"W	0.003m	-21.420m	0.013m	
CP1236	26°37'39.29356"N	0.006m	80°31'05.94593"W	0.006m	-21.825m	0.017m	
CP1051	26°35'34.33389"N	0.004m	80°26'44.85157"W	0.004m	-20.625m	0.016m	e
FDEM-PS5	26°41'00.87641"N	0.004m	80°22'06.69963"W	0.004m	-18.169m	0.017m	
CP1050	26°40'42.38057"N	0.003m	80°21'46.91559"W	0.004m	-18.592m	0.016m	
D 537	26°37'34.16920"N	0.000m	80°19'12.14889"W	0.000m	-18.081m	0.017m	Lat Long e
FDEM-BC2	26°19'32.14457"N	0.003m	80°58'44.26748"W	0.004m	-19.671m	0.020m	
FISH	26°56'01.68830"N	0.000m	81°18'54.44336"W	0.000m	-13.617m	0.017m	Lat Long e
CP1097	26°56'43.20836"N	0.004m	81°18'29.63319"W	0.003m	-12.376m	0.017m	

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CP1163	26°53'06.23885"N	0.003m	81°07'21.34103"W	0.004m	-18.906m	0.017m	
CP1233	27°10'06.35763"N	0.006m	80°56'35.65545"W	0.006m	-18.392m	0.023m	
CP1182	27°08'37.33036"N	0.006m	80°52'44.92689"W	0.007m	-20.485m	0.025m	
K 518	27°04'34.90071"N	0.000m	81°20'06.19195"W	0.000m	12.976m	0.025m	Lat Long e
CP1102	27°02'48.36825"N	0.008m	81°15'25.23016"W	0.006m	-13.718m	0.020m	
FLGPS 57	26°58'40.50799"N	0.000m	81°06'39.55348"W	0.000m	-20.383m	0.015m	Lat Long e
CP1171	26°59'02.48571"N	0.002m	81°05'05.61544"W	0.002m	-20.015m	0.016m	
CP1173	27°00'18.67874"N	0.005m	81°03'09.75635"W	0.005m	-19.983m	0.019m	
CP1174	27°00'41.78356"N	0.006m	81°01'54.38946"W	0.005m	-20.609m	0.020m	
CP1178	27°05'23.34300"N	0.007m	80°57'42.16620"W	0.008m	-19.912m	0.028m	
CP1177	27°03'57.24629"N	0.009m	80°58'42.33261"W	0.007m	-16.662m	0.028m	
CP1181	27°07'36.52800"N	0.004m	80°53'22.66947"W	0.006m	-20.762m	0.025m	
CP1225	26°56'31.33751"N	0.004m	81°11'10.13547"W	0.005m	-14.956m	0.016m	
CP1227	26°58'47.27913"N	0.003m	81°08'56.80748"W	0.004m	-18.105m	0.015m	
CP1172	26°59'55.79813"N	0.003m	81°04'16.94325"W	0.003m	-20.044m	0.016m	
CP1176	27°02'29.95359"N	0.009m	80°59'35.87222"W	0.007m	-20.312m	0.029m	
K 523	27°06'23.16391"N	0.000m	80°55'17.19877"W	0.000m	-16.091m	0.023m	Lat Long e
CP1101	27°01'03.18672"N	0.009m	81°16'37.57494"W	0.007m	-12.979m	0.020m	
CP1098	26°56'36.97796"N	0.003m	81°16'38.78578"W	0.003m	-13.327m	0.016m	
CP1094	26°54'40.54171"N	0.005m	81°16'33.54423"W	0.005m	-13.882m	0.018m	
CP1232	27°07'47.87404"N	0.006m	80°58'44.86738"W	0.007m	-19.737m	0.026m	
CP1167	26°57'07.83401"N	0.004m	81°07'19.89965"W	0.004m	-18.425m	0.016m	
CP1111	27°06'26.51486"N	0.005m	81°06'40.00312"W	0.005m	-17.370m	0.018m	
CP1228	27°03'24.20026"N	0.006m	81°11'38.07252"W	0.006m	-15.727m	0.020m	
CP1226	26°58'19.38615"N	0.005m	81°15'08.65423"W	0.004m	-15.641m	0.017m	
CP1092	26°52'15.80484"N	0.004m	81°10'22.82581"W	0.006m	-18.577m	0.020m	
CP1229	27°01'59.74352"N	0.002m	81°07'28.69757"W	0.003m	-18.032m	0.015m	
CP1179	27°06'28.73825"N	0.005m	80°56'34.90433"W	0.007m	-19.730m	0.027m	
CP1180	27°07'20.42696"N	0.004m	80°55'02.93321"W	0.006m	-19.827m	0.024m	
CP1109	27°06'37.68114"N	0.005m	81°08'58.10617"W	0.005m	-16.519m	0.019m	
CP1104	27°07'14.65668"N	0.003m	81°14'49.53817"W	0.004m	-14.043m	0.019m	
CP1099	26°57'56.51387"N	0.004m	81°16'40.17716"W	0.003m	-13.839m	0.017m	
CP1166	26°55'43.22937"N	0.005m	81°07'20.45452"W	0.005m	-18.205m	0.016m	
CP1170	26°59'02.60346"N	0.002m	81°06'07.93644"W	0.002m	-20.098m	0.016m	
CP1175	27°01'37.47664"N	0.023m	81°00'40.51545"W	0.010m	-19.979m	0.068m	

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CP1103	27°03'10.69490"N	0.006m	81°14'47.21940"W	0.006m	-14.767m	0.018m	
CP1162	26°51'54.60950"N	0.004m	81°07'21.51861"W	0.005m	-19.206m	0.019m	
CP1168	26°57'50.07252"N	0.002m	81°07'13.67556"W	0.003m	-17.840m	0.015m	
CP1244	27°00'45.51204"N	0.004m	81°11'30.63073"W	0.004m	-17.087m	0.016m	
CP1100	26°59'16.62684"N	0.007m	81°16'06.10700"W	0.005m	-13.255m	0.021m	
CP1093	26°55'14.24394"N	0.005m	81°14'07.20231"W	0.006m	-16.975m	0.019m	
CP1165	26°55'09.46611"N	0.003m	81°07'20.62247"W	0.003m	-17.414m	0.015m	
CP1169	26°58'33.07473"N	0.002m	81°06'50.96077"W	0.003m	-19.973m	0.015m	
CP1230	27°04'18.39430"N	0.004m	81°04'14.12948"W	0.004m	-18.394m	0.017m	
CP1091a	26°51'29.43960"N	0.004m	81°13'01.61960"W	0.005m	-17.431m	0.017m	
CP1096	26°56'43.46795"N	0.004m	81°19'02.04368"W	0.003m	-11.652m	0.017m	
CP1095	26°55'15.83307"N	0.005m	81°19'07.06385"W	0.006m	-11.902m	0.019m	
CP1164	26°53'44.07827"N	0.002m	81°07'21.13518"W	0.002m	-19.463m	0.015m	
CP1231	27°05'29.09776"N	0.008m	81°00'21.83855"W	0.006m	-16.319m	0.026m	
CP1110	27°07'20.52171"N	0.006m	81°04'59.12454"W	0.006m	-17.644m	0.019m	
C 358	27°14'11.06575"N	0.000m	81°03'14.29810"W	0.000m	-16.554m	0.022m	Lat Long e
CP1112	27°08'27.63765"N	0.007m	81°03'08.50538"W	0.007m	-18.593m	0.028m	
A 518	27°12'26.16974"N	0.000m	81°19'44.24947"W	0.000m	16.489m	0.021m	Lat Long e
CP1106	27°10'41.79660"N	0.003m	81°13'51.12001"W	0.003m	-14.561m	0.020m	
CP1118	27°14'36.98322"N	0.005m	80°54'01.15672"W	0.004m	-17.421m	0.022m	
CP1185	27°11'34.66935"N	0.005m	80°50'51.55374"W	0.005m	-20.201m	0.022m	
CP1187	27°12'10.76113"N	0.008m	80°53'40.97197"W	0.006m	-21.433m	0.025m	
CP1115	27°12'53.82085"N	0.006m	81°00'15.67496"W	0.008m	-16.893m	0.028m	
CP1114	27°11'44.91432"N	0.008m	81°00'14.88679"W	0.008m	-18.112m	0.028m	
CP1186	27°11'45.36795"N	0.007m	80°58'16.99201"W	0.008m	-18.969m	0.026m	
OKEEPORT RESET	27°15'59.40508"N	0.000m	80°51'08.07943"W	0.000m	-17.212m	0.022m	Lat Long e
CP1001	27°15'51.00194"N	0.009m	80°47'16.27286"W	0.009m	-17.292m	0.034m	
CP1108	27°07'58.48709"N	0.004m	81°09'48.48879"W	0.004m	-16.844m	0.018m	
B 529	27°12'34.07301"N	0.000m	81°11'09.07967"W	0.000m	-15.786m	0.020m	Lat Long e
CP1119	27°14'56.51467"N	0.004m	80°51'56.06824"W	0.004m	-17.027m	0.022m	
CP1117	27°14'37.06163"N	0.007m	80°56'10.16254"W	0.006m	-17.246m	0.023m	
CP1113	27°09'52.29067"N	0.005m	81°01'42.72494"W	0.006m	-18.118m	0.024m	
CP1107	27°08'14.20235"N	0.004m	81°12'05.00208"W	0.005m	-14.752m	0.019m	
CP1116	27°14'31.34221"N	0.006m	80°58'31.31794"W	0.008m	-17.675m	0.026m	
CP1183	27°09'01.48087"N	0.007m	80°52'06.56729"W	0.006m	-19.465m	0.025m	

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Point Name	Latitude	N error	Longitude	E error	Height	h error	Fix
CP1120	27°14'56.15340"N	0.005m	80°49'59.98321"W	0.005m	-17.844m	0.023m	
CP1122	27°11'51.94511"N	0.006m	80°49'48.87257"W	0.005m	-20.767m	0.022m	
CP1105	27°09'24.08077"N	0.003m	81°14'52.18774"W	0.003m	-15.139m	0.019m	
CP1003	27°15'47.40914"N	0.005m	80°50'04.55774"W	0.005m	-18.401m	0.024m	
CP1184	27°10'18.23433"N	0.008m	80°51'25.48300"W	0.006m	-20.492m	0.026m	
S 191 W	27°11'32.21675"N	0.000m	80°45'47.17253"W	0.000m	-14.356m	0.020m	Lat Long e
CP1125	27°10'49.92319"N	0.004m	80°44'01.50310"W	0.003m	-20.747m	0.021m	
CP1127	27°08'51.75740"N	0.005m	80°41'45.69436"W	0.007m	-20.727m	0.022m	
CP1126	27°09'51.50375"N	0.005m	80°42'56.62768"W	0.004m	-20.805m	0.020m	
CP1130	27°05'21.97452"N	0.003m	80°39'34.55335"W	0.003m	-21.683m	0.017m	
CP1129	27°06'40.06306"N	0.005m	80°39'50.65821"W	0.006m	-20.323m	0.022m	
CP1123	27°12'26.09206"N	0.012m	80°47'47.71337"W	0.008m	-14.406m	0.029m	
CP1124	27°11'39.55890"N	0.004m	80°45'46.34266"W	0.003m	-18.455m	0.021m	
CP1190	27°01'50.56555"N	0.003m	80°36'44.87465"W	0.003m	-20.549m	0.018m	
CP1021	27°01'51.58206"N	0.003m	80°33'30.05207"W	0.003m	-19.039m	0.018m	
CP1188	27°09'35.61246"N	0.006m	80°41'01.21866"W	0.006m	-18.959m	0.021m	
CP1016	27°07'23.20247"N	0.005m	80°37'21.13565"W	0.005m	-17.957m	0.020m	
CP1007	27°13'00.34298"N	0.006m	80°43'47.34634"W	0.005m	-18.089m	0.023m	
CP1010	27°10'48.44634"N	0.014m	80°41'38.90504"W	0.009m	-18.551m	0.023m	
CP1128	27°08'01.21623"N	0.006m	80°41'11.44183"W	0.011m	-20.650m	0.027m	
CP1131	27°04'02.85224"N	0.004m	80°39'04.46031"W	0.005m	-20.203m	0.019m	
L 048	27°05'10.08514"N	0.000m	80°39'40.20978"W	0.000m	-16.113m	0.018m	Lat Long e
CP1132	27°03'07.96483"N	0.003m	80°38'37.86606"W	0.004m	-21.131m	0.018m	
CP1134	27°00'04.55760"N	0.003m	80°37'19.41036"W	0.004m	-20.409m	0.018m	
CP1019	27°04'26.24792"N	0.004m	80°35'19.98879"W	0.005m	-18.834m	0.018m	
CP1121	27°15'16.65095"N	0.016m	80°48'53.68421"W	0.009m	-19.336m	0.039m	
CP1011	27°11'38.73243"N	0.005m	80°41'51.86833"W	0.004m	-17.943m	0.020m	
CP1020	27°02'55.44713"N	0.003m	80°33'21.83026"W	0.003m	-18.123m	0.018m	
CP1017	27°07'05.80093"N	0.004m	80°36'15.52779"W	0.004m	-17.657m	0.018m	
CP1006	27°13'14.77837"N	0.008m	80°44'35.87295"W	0.006m	-17.882m	0.029m	
CP1004	27°14'57.49687"N	0.009m	80°45'30.82816"W	0.009m	-16.632m	0.030m	
C T2	27°17'40.46898"N	0.000m	80°34'45.27241"W	0.000m	-18.603m	0.024m	Lat Long e
R 543	27°09'43.96799"N	0.000m	80°28'52.89710"W	0.000m	-18.597m	0.019m	Lat Long e
EDN 6 25	27°00'41.60022"N	0.000m	80°27'20.35370"W	0.000m	-17.659m	0.019m	Lat Long e
CP1002	27°15'01.72311"N	0.022m	80°47'18.53105"W	0.009m	-17.685m	0.049m	

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CP1008	27°12'36.72121"N	0.005m	80°43'24.99625"W	0.004m	-15.420m	0.021m	
CP1133	27°02'04.40976"N	0.004m	80°38'10.07668"W	0.004m	-21.033m	0.018m	
CP1135	26°58'24.34103"N	0.005m	80°36'45.88816"W	0.004m	-20.272m	0.020m	
CP1012	27°10'52.48528"N	0.006m	80°39'40.61310"W	0.006m	-17.506m	0.021m	
CP1018	27°06'48.00838"N	0.005m	80°35'04.29847"W	0.006m	-17.148m	0.022m	
CP1014	27°08'31.71831"N	0.007m	80°39'06.12873"W	0.007m	-17.386m	0.023m	
CP1015	27°08'08.31531"N	0.008m	80°38'26.16045"W	0.010m	-17.880m	0.028m	
CP1189	27°05'26.99480"N	0.003m	80°36'39.69660"W	0.003m	-18.651m	0.017m	
CP1009	27°11'37.35488"N	0.005m	80°42'23.03679"W	0.004m	-18.209m	0.021m	
CP1013	27°09'59.71951"N	0.008m	80°38'57.95436"W	0.010m	-17.259m	0.026m	
CP1022	26°59'54.30590"N	0.004m	80°33'31.25682"W	0.004m	-18.457m	0.019m	
CP1005	27°14'12.99698"N	0.011m	80°44'35.60025"W	0.012m	-16.681m	0.038m	
CP1260	26°39'09.99416"N	0.006m	80°52'10.92418"W	0.007m	-19.289m	0.019m	
CP1252	26°24'14.14505"N	0.004m	80°52'53.82116"W	0.004m	-20.147m	0.015m	
CP1257	26°31'20.48274"N	0.004m	80°43'49.33728"W	0.004m	-21.618m	0.016m	
CP1259	26°37'52.61912"N	0.004m	80°43'55.93670"W	0.005m	-21.170m	0.015m	
CP1255	26°34'48.64815"N	0.004m	80°49'14.30661"W	0.004m	-21.474m	0.014m	
CP1262	26°34'46.99070"N	0.006m	80°55'59.82716"W	0.007m	-20.430m	0.020m	
CP1251	26°22'42.25501"N	0.003m	80°55'21.43319"W	0.004m	-17.647m	0.015m	
CP1253	26°27'49.14234"N	0.004m	80°50'58.88854"W	0.005m	-19.652m	0.015m	
CP1254	26°32'34.35528"N	0.006m	80°52'34.91402"W	0.006m	-20.839m	0.017m	
CP1258	26°37'53.20094"N	0.005m	80°46'51.76686"W	0.005m	-21.594m	0.014m	
CP1256	26°28'43.98658"N	0.006m	80°47'09.91800"W	0.005m	-21.153m	0.022m	
CP1064	26°21'49.08682"N	0.003m	80°57'21.10735"W	0.003m	-19.775m	0.015m	
CP1261	26°32'42.03486"N	0.005m	80°47'15.77511"W	0.004m	-21.497m	0.016m	
CP1062	26°19'12.34289"N	0.004m	80°54'55.68259"W	0.004m	-20.226m	0.018m	
MF 41	26°40'39.67623"N	0.006m	80°06'14.15460"W	0.006m	-19.926m	0.019m	e
CP1041	26°40'59.67018"N	0.005m	80°08'43.76038"W	0.005m	-21.259m	0.018m	
CP1029	26°49'00.76786"N	0.003m	80°21'38.85705"W	0.003m	-18.795m	0.014m	
FLGPS 67	26°52'19.63861"N	0.000m	80°14'43.55837"W	0.000m	-20.140m	0.018m	Lat Long e
CP1033	26°48'43.12065"N	0.006m	80°14'40.35030"W	0.007m	-19.913m	0.025m	
CP1248	26°46'49.32996"N	0.003m	80°19'38.46795"W	0.003m	-19.521m	0.014m	
CP1246	26°46'34.42815"N	0.007m	80°15'17.40869"W	0.007m	-20.278m	0.025m	
CP1042	26°41'01.08495"N	0.004m	80°09'37.39944"W	0.004m	-21.059m	0.017m	
CP1238	26°44'10.48932"N	0.004m	80°14'11.34196"W	0.004m	-20.138m	0.016m	

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CP1046	26°40'17.16472"N	0.006m	80°14'30.75431"W	0.006m	-21.229m	0.020m	
CP1196	26°40'52.79626"N	0.006m	80°29'52.35380"W	0.005m	-21.603m	0.017m	
CP1030	26°48'58.17468"N	0.004m	80°19'38.71250"W	0.004m	-19.676m	0.015m	
CP1034	26°49'02.74140"N	0.006m	80°12'32.91431"W	0.008m	-20.032m	0.027m	
CP1038	26°42'27.23667"N	0.004m	80°07'49.69222"W	0.004m	-20.915m	0.018m	
CP1043	26°40'15.58040"N	0.005m	80°09'34.58399"W	0.005m	-20.962m	0.018m	
CP1239	26°45'01.24699"N	0.003m	80°21'12.15409"W	0.003m	-20.219m	0.013m	
CP1235	26°42'38.60119"N	0.005m	80°25'42.61973"W	0.005m	-20.967m	0.016m	
CP1048	26°40'15.60837"N	0.003m	80°17'55.26477"W	0.003m	-20.270m	0.015m	
CP1037	26°45'05.93576"N	0.004m	80°08'05.69734"W	0.004m	-20.420m	0.018m	
CP1044	26°40'11.58751"N	0.005m	80°10'55.55772"W	0.005m	-21.245m	0.018m	
CP1047	26°40'13.96066"N	0.005m	80°16'00.26297"W	0.004m	-21.274m	0.016m	
CP1049	26°40'35.93996"N	0.003m	80°19'52.32974"W	0.003m	-18.184m	0.015m	
CP1032	26°49'12.92025"N	0.007m	80°16'09.75497"W	0.007m	-19.635m	0.025m	
CP1040	26°41'50.79993"N	0.005m	80°08'45.11923"W	0.005m	-21.104m	0.018m	
CP1249	26°43'14.54750"N	0.006m	80°15'54.56864"W	0.005m	-19.838m	0.017m	
B 548	26°47'17.65025"N	0.000m	80°07'10.86697"W	0.000m	-21.024m	0.019m	Lat Long e
CP1036	26°45'57.63288"N	0.004m	80°11'58.62591"W	0.004m	-19.966m	0.017m	
C 547	26°59'09.86360"N	0.000m	80°24'56.68355"W	0.000m	-19.302m	0.023m	Lat Long e
CP1025	26°55'06.75907"N	0.006m	80°29'02.35224"W	0.005m	-18.263m	0.021m	
CP1194	26°46'06.15567"N	0.004m	80°25'36.42003"W	0.004m	-21.657m	0.014m	
CP1245	26°53'07.31454"N	0.005m	80°34'48.14914"W	0.005m	-22.248m	0.016m	
CP1136	26°55'45.82719"N	0.005m	80°36'42.67645"W	0.003m	-20.532m	0.018m	
CP1191	26°53'56.26043"N	0.005m	80°31'56.76132"W	0.006m	-21.001m	0.019m	
CP1027	26°50'40.58852"N	0.005m	80°24'35.43995"W	0.006m	-19.465m	0.018m	
CP1024	26°57'29.06734"N	0.007m	80°30'48.11873"W	0.005m	-18.745m	0.024m	
H 547	26°56'35.13743"N	0.000m	80°21'05.34982"W	0.000m	-18.989m	0.018m	Lat Long e
CP1026	26°51'35.62716"N	0.004m	80°24'59.67349"W	0.005m	-19.414m	0.017m	
CP1023	26°57'17.04244"N	0.005m	80°33'50.76583"W	0.003m	-18.922m	0.017m	
CP1028	26°49'11.36172"N	0.004m	80°23'11.08639"W	0.004m	-19.232m	0.015m	
CP1206	26°50'29.01211"N	0.005m	80°28'04.35244"W	0.006m	-20.984m	0.019m	
CP2000	26°42'56.97770"N	0.004m	80°53'38.73680"W	0.005m	-21.631m	0.014m	
CP2005	26°42'48.02854"N	0.004m	80°54'19.76928"W	0.005m	-20.731m	0.015m	
CP2009	26°42'40.26316"N	0.005m	80°52'10.99151"W	0.006m	-21.236m	0.015m	
K 413	26°41'04.28232"N	0.000m	80°19'51.83211"W	0.000m	-21.062m	0.017m	Lat Long e

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Point Name	Latitude	N error	Longitude	E error	Height	h error	Fix
CP1031	26°49'16.68381"N	0.006m	80°17'34.79203"W	0.005m	-19.872m	0.018m	
CP1035	26°48'39.96465"N	0.005m	80°11'50.43975"W	0.006m	-20.177m	0.022m	
CP1039	26°41'50.41351"N	0.005m	80°07'52.22299"W	0.004m	-21.574m	0.018m	
CP1195	26°44'44.26841"N	0.004m	80°18'28.45018"W	0.004m	-19.314m	0.014m	
CP1045	26°40'16.63779"N	0.005m	80°12'10.64432"W	0.005m	-20.156m	0.018m	
CP3000	26°43'32.05422"N	0.005m	80°13'42.66024"W	0.005m	-20.974m	0.018m	
CP3004	26°36'45.70787"N	0.006m	80°33'20.98676"W	0.006m	-20.120m	0.018m	
CP3003	26°32'24.21004"N	0.014m	80°29'57.76623"W	0.009m	-20.548m	0.039m	
CP3005	26°25'40.47228"N	0.010m	80°36'36.59860"W	0.007m	-20.683m	0.018m	
CP3006	26°34'23.54728"N	0.004m	80°42'38.46698"W	0.004m	-20.182m	0.015m	
CP3002	26°46'35.22420"N	0.006m	80°35'47.91439"W	0.007m	-22.087m	0.019m	
CP3008	26°28'44.74521"N	0.007m	80°49'16.93007"W	0.006m	-18.396m	0.020m	
CP3010	26°39'11.06077"N	0.007m	80°54'37.65729"W	0.007m	-19.680m	0.021m	
CP3001	26°46'35.72023"N	0.007m	80°28'21.56714"W	0.008m	-22.589m	0.022m	
CP5116	26°40'55.63174"N	0.005m	80°39'38.75546"W	0.005m	-21.133m	0.013m	
CP5112	26°41'47.80938"N	0.010m	80°40'04.75311"W	0.008m	-20.369m	0.020m	
CP5102	26°39'23.89101"N	0.003m	80°41'14.27409"W	0.004m	-21.617m	0.015m	
CP5101	26°39'52.31372"N	0.004m	80°41'03.44833"W	0.005m	-22.007m	0.016m	
CP5103	26°40'12.18922"N	0.005m	80°40'59.21282"W	0.005m	-21.773m	0.018m	
CP5107	26°40'36.43073"N	0.005m	80°40'58.35697"W	0.006m	-21.468m	0.018m	
CP5105	26°40'04.77737"N	0.005m	80°40'13.55989"W	0.006m	-20.977m	0.018m	
CP5106	26°40'36.60179"N	0.006m	80°41'11.22337"W	0.006m	-20.616m	0.019m	
CP5114A	26°40'56.58346"N	0.005m	80°41'01.95101"W	0.005m	-20.064m	0.018m	
CP5114B	26°40'58.07588"N	0.006m	80°40'40.26797"W	0.005m	-21.302m	0.019m	
CP5117	26°41'22.98215"N	0.004m	80°41'02.69536"W	0.004m	-20.659m	0.016m	
CP5108	26°42'01.76439"N	0.004m	80°41'01.94695"W	0.004m	-21.066m	0.015m	
CP5109	26°41'45.83896"N	0.004m	80°41'19.18330"W	0.004m	-20.366m	0.015m	
CP5119	26°41'35.94204"N	0.005m	80°38'09.84430"W	0.004m	-22.126m	0.013m	
CP5110	26°40'30.22107"N	0.007m	80°40'42.70666"W	0.007m	-21.622m	0.023m	
CP5115	26°40'55.68106"N	0.008m	80°40'11.47955"W	0.006m	-21.102m	0.023m	
CP5118	26°38'54.58402"N	0.006m	80°38'19.97884"W	0.005m	-20.800m	0.017m	
CP5113	26°40'42.04304"N	0.006m	80°39'14.54924"W	0.006m	-20.793m	0.016m	
CP5111	26°40'04.52073"N	0.005m	80°37'54.61292"W	0.005m	-21.197m	0.016m	
CP5104	26°44'02.24210"N	0.003m	80°39'57.93592"W	0.003m	-21.966m	0.012m	
CP5134	26°43'52.74117"N	0.005m	80°57'12.84227"W	0.006m	-18.273m	0.016m	

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Point Name	Latitude	N error	Longitude	E error	Height	h error	Fix
CP5132	26°44'14.14806"N	0.005m	80°57'30.83503"W	0.006m	-19.105m	0.016m	
CP5131	26°44'10.08447"N	0.005m	80°57'03.82457"W	0.005m	-19.189m	0.016m	
CP5137	26°45'47.99786"N	0.005m	80°56'22.39220"W	0.006m	-20.360m	0.017m	
CP5133	26°44'12.95187"N	0.005m	80°56'38.74810"W	0.006m	-19.265m	0.017m	
CP1305	26°44'23.76622"N	0.005m	80°55'34.93974"W	0.006m	-19.632m	0.016m	
CP5136	26°45'12.06886"N	0.005m	80°54'35.04043"W	0.005m	-18.378m	0.016m	
CP5135	26°45'13.31148"N	0.005m	80°54'49.00551"W	0.005m	-20.308m	0.015m	
CP5141	26°49'45.22878"N	0.005m	81°06'14.43226"W	0.004m	-20.400m	0.017m	
CP5138	26°48'56.24758"N	0.008m	81°06'04.68604"W	0.006m	-21.043m	0.021m	
CP5143	26°50'00.26522"N	0.004m	81°05'12.36450"W	0.004m	-19.733m	0.015m	
CP5140	26°49'56.04038"N	0.006m	81°05'49.53508"W	0.006m	-20.458m	0.022m	
CP5142	26°50'22.51219"N	0.005m	81°05'17.48773"W	0.005m	-18.600m	0.016m	
CP5139	26°49'05.36369"N	0.008m	81°06'24.18720"W	0.006m	-20.475m	0.022m	
CP5146	26°58'00.20011"N	0.003m	81°08'02.77984"W	0.004m	-19.362m	0.017m	
CP5145	26°58'22.69922"N	0.003m	81°07'04.29687"W	0.003m	-20.160m	0.016m	
CP5144	26°58'00.18680"N	0.003m	81°07'42.15858"W	0.004m	-19.400m	0.017m	
CP5148	26°59'01.46921"N	0.003m	81°05'46.16155"W	0.003m	-20.476m	0.017m	
CP5147	26°58'57.62185"N	0.003m	81°06'15.48441"W	0.003m	-19.970m	0.017m	
CP5149	26°58'55.52888"N	0.007m	81°05'27.74879"W	0.007m	-19.549m	0.022m	
CP5152	26°59'51.39274"N	0.004m	81°04'25.24208"W	0.003m	-20.116m	0.017m	
CP5150	26°59'25.05370"N	0.005m	81°04'46.58037"W	0.004m	-20.062m	0.021m	
CP5151	26°59'39.69639"N	0.005m	81°04'35.63840"W	0.004m	-19.946m	0.021m	
CP5154	27°00'19.87314"N	0.005m	81°03'08.24970"W	0.004m	-20.019m	0.019m	
CP5153	27°00'01.83032"N	0.004m	81°03'59.09416"W	0.004m	-20.462m	0.019m	
CP5155	27°00'29.79202"N	0.007m	81°02'30.08659"W	0.006m	-20.049m	0.020m	
CP5120	26°38'54.34946"N	0.003m	80°18'58.17447"W	0.004m	-21.681m	0.016m	
CP5129	26°41'04.16548"N	0.003m	80°19'22.32066"W	0.004m	-20.817m	0.016m	
CP5130	26°42'34.08551"N	0.005m	80°12'03.18299"W	0.005m	-20.362m	0.018m	
CP5122	26°45'11.07087"N	0.007m	80°03'33.97911"W	0.006m	-22.048m	0.023m	
CP5123	26°42'27.80316"N	0.013m	80°03'42.82408"W	0.011m	-21.710m	0.049m	
CP5121	26°49'17.08794"N	0.021m	80°03'31.53953"W	0.014m	-23.787m	0.031m	
CP5128	26°47'39.38477"N	0.008m	80°16'39.87836"W	0.009m	-19.697m	0.037m	
CP5127	26°48'58.96472"N	0.005m	80°20'37.02319"W	0.004m	-18.741m	0.016m	
CP5156	27°07'25.20220"N	0.004m	80°53'52.89939"W	0.006m	-20.804m	0.025m	
CP5157	27°08'10.52668"N	0.004m	80°53'32.99554"W	0.006m	-20.336m	0.024m	

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CP5158	27°08'05.99982"N	0.006m	80°52'57.64868"W	0.007m	-20.809m	0.025m	
CP5159	27°08'40.28456"N	0.005m	80°52'38.77030"W	0.006m	-21.197m	0.025m	
CP5161	27°08'47.10364"N	0.006m	80°52'04.32019"W	0.007m	-20.480m	0.025m	
CP5162	27°08'57.76498"N	0.006m	80°52'05.16056"W	0.007m	-20.288m	0.025m	
CP5160	27°08'47.91604"N	0.006m	80°52'26.50680"W	0.007m	-19.749m	0.026m	
CP5163	27°08'49.53210"N	0.006m	80°51'52.19018"W	0.007m	-20.507m	0.025m	
CP5165	27°09'08.83862"N	0.006m	80°52'07.69251"W	0.007m	-19.669m	0.025m	
CP5164	27°08'56.32890"N	0.007m	80°51'52.08426"W	0.007m	-20.659m	0.026m	
CP5166	27°09'11.52791"N	0.007m	80°52'19.94250"W	0.007m	-20.533m	0.026m	
CP5167	27°09'14.74419"N	0.008m	80°52'00.89357"W	0.007m	-20.781m	0.026m	
CP5170	27°09'44.94220"N	0.008m	80°51'41.52588"W	0.007m	-21.994m	0.027m	
CP5169	27°09'38.31557"N	0.008m	80°51'44.89556"W	0.008m	-22.284m	0.028m	
CP5168	27°09'33.04930"N	0.008m	80°51'54.13351"W	0.008m	-21.680m	0.028m	
CP5173	27°10'07.94285"N	0.009m	80°51'30.57722"W	0.008m	-21.157m	0.029m	
CP5171	27°09'50.19306"N	0.009m	80°51'43.66633"W	0.008m	-21.027m	0.029m	
CP5172	27°09'55.41870"N	0.009m	80°51'39.88551"W	0.008m	-20.585m	0.029m	
CP5175	27°10'25.80543"N	0.010m	80°51'21.00793"W	0.008m	-20.696m	0.030m	
CP5174	27°10'17.21453"N	0.010m	80°51'19.21136"W	0.008m	-21.380m	0.030m	
CP5190	27°13'55.93904"N	0.007m	80°49'49.63583"W	0.006m	-18.771m	0.026m	
CP5191	27°13'50.87404"N	0.008m	80°50'06.98198"W	0.007m	-18.997m	0.028m	
CP5188	27°13'40.53167"N	0.007m	80°49'45.07823"W	0.006m	-19.410m	0.025m	
CP5189	27°13'45.49471"N	0.008m	80°49'48.79453"W	0.007m	-18.888m	0.026m	
CP5186	27°13'16.10918"N	0.008m	80°49'46.90086"W	0.007m	-20.846m	0.026m	
CP5185	27°13'07.11174"N	0.007m	80°50'22.60148"W	0.006m	-20.746m	0.025m	
CP5187	27°13'23.38093"N	0.008m	80°49'44.83928"W	0.007m	-19.842m	0.026m	
CP5231	27°14'10.96556"N	0.007m	80°51'13.99034"W	0.005m	-17.982m	0.026m	
CP5195	27°14'15.75726"N	0.006m	80°50'19.38208"W	0.005m	-17.854m	0.025m	
CP5227	27°14'36.83810"N	0.006m	80°51'31.17507"W	0.005m	-17.308m	0.025m	
CP5230	27°14'36.32636"N	0.007m	80°51'08.95845"W	0.006m	-17.605m	0.026m	
CP5229	27°14'36.87097"N	0.007m	80°52'09.64137"W	0.005m	-17.054m	0.027m	
CP5228	27°15'04.38948"N	0.007m	80°51'35.85947"W	0.005m	-17.171m	0.028m	
CP5222	27°16'12.96654"N	0.009m	80°52'02.46490"W	0.008m	-17.241m	0.032m	
CP5224	27°15'27.52585"N	0.008m	80°52'51.05778"W	0.006m	-16.762m	0.031m	
CP5223	27°16'15.28204"N	0.008m	80°52'50.67821"W	0.006m	-16.409m	0.030m	
CP5226	27°15'55.68447"N	0.009m	80°53'45.71424"W	0.007m	-17.156m	0.034m	

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CP5225	27°16'15.14491"N	0.009m	80°54'25.13992"W	0.007m	-16.813m	0.033m	
CP5221	27°16'46.92839"N	0.014m	80°52'02.22222"W	0.014m	-16.562m	0.039m	
CP5219	27°16'46.45433"N	0.009m	80°51'44.04679"W	0.008m	-16.246m	0.033m	
CP5220	27°15'56.97501"N	0.011m	80°51'43.77541"W	0.009m	-17.140m	0.034m	
CP5217	27°16'46.30702"N	0.009m	80°51'26.54524"W	0.008m	-16.316m	0.033m	
CP5216	27°16'21.90008"N	0.009m	80°51'08.99879"W	0.008m	-16.667m	0.033m	
CP5218	27°16'21.45146"N	0.010m	80°51'26.42449"W	0.009m	-16.608m	0.034m	
CP5214	27°16'22.16253"N	0.008m	80°50'54.76449"W	0.007m	-17.129m	0.030m	
CP5213	27°16'46.59689"N	0.009m	80°50'54.80308"W	0.009m	-16.428m	0.035m	
CP5215	27°16'46.25707"N	0.009m	80°51'08.95669"W	0.009m	-16.921m	0.036m	
CP5212	27°16'41.62765"N	0.009m	80°50'30.77367"W	0.009m	-17.167m	0.033m	
CP5210	27°16'16.78551"N	0.007m	80°50'13.16943"W	0.006m	-17.901m	0.028m	
CP5211	27°16'41.71377"N	0.010m	80°49'46.26772"W	0.008m	-18.181m	0.032m	
CP5207	27°15'53.81913"N	0.006m	80°49'51.79478"W	0.005m	-18.574m	0.026m	
CP5208	27°15'55.11373"N	0.007m	80°50'14.93198"W	0.006m	-18.023m	0.027m	
CP5209	27°16'16.54213"N	0.007m	80°49'50.63090"W	0.006m	-18.363m	0.028m	
CP5205	27°15'33.53144"N	0.006m	80°49'54.72418"W	0.005m	-17.961m	0.026m	
CP5206	27°15'30.77836"N	0.007m	80°50'16.11210"W	0.006m	-18.199m	0.027m	
CP5204	27°15'21.25777"N	0.008m	80°49'50.43848"W	0.007m	-18.513m	0.031m	
CP5202	27°15'09.05625"N	0.008m	80°49'48.36345"W	0.007m	-18.428m	0.032m	
CP5203	27°15'09.42131"N	0.006m	80°50'14.00840"W	0.006m	-17.616m	0.024m	
CP5200	27°14'52.32263"N	0.006m	80°49'48.21027"W	0.005m	-18.309m	0.024m	
CP5201	27°14'51.46995"N	0.007m	80°50'04.78778"W	0.006m	-17.979m	0.025m	
CP5199	27°14'40.75002"N	0.007m	80°50'12.36390"W	0.006m	-17.725m	0.024m	
CP5197	27°14'24.52322"N	0.006m	80°50'04.16330"W	0.005m	-17.968m	0.024m	
CP5198	27°14'37.90559"N	0.007m	80°49'48.50502"W	0.006m	-18.276m	0.025m	
CP5196	27°14'28.36430"N	0.006m	80°49'43.56779"W	0.006m	-18.744m	0.025m	
CP5194	27°14'13.34142"N	0.006m	80°50'04.14358"W	0.006m	-18.280m	0.025m	
CP5192	27°14'07.56806"N	0.007m	80°49'46.57504"W	0.006m	-19.445m	0.027m	
CP5193	27°14'13.61556"N	0.007m	80°49'51.39739"W	0.006m	-18.475m	0.027m	
CP5182	27°12'49.18455"N	0.007m	80°49'48.38099"W	0.007m	-21.033m	0.025m	
CP5181	27°12'31.00605"N	0.007m	80°49'46.27457"W	0.006m	-21.486m	0.024m	
CP5179	27°12'11.39533"N	0.007m	80°49'23.98166"W	0.006m	-22.300m	0.025m	
CP5183	27°12'53.27448"N	0.007m	80°49'54.65269"W	0.006m	-20.752m	0.025m	
CP5180	27°12'14.65225"N	0.007m	80°49'38.70880"W	0.006m	-22.275m	0.024m	

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CP5184	27°12'44.24206"N	0.007m	80°50'38.53081"W	0.007m	-21.399m	0.025m	
CP5177	27°12'09.70281"N	0.006m	80°49'49.06011"W	0.005m	-21.919m	0.023m	
CP5178	27°12'08.58188"N	0.008m	80°49'37.11666"W	0.006m	-22.090m	0.026m	
CP5125	27°03'25.21570"N	0.007m	80°33'30.30315"W	0.006m	-17.099m	0.021m	
CP5126	27°01'02.92496"N	0.028m	80°27'45.19054"W	0.021m	-16.508m	0.064m	
CP5124	27°06'12.91301"N	0.005m	80°35'41.99109"W	0.004m	-17.718m	0.019m	
CP5176	27°12'14.17687"N	0.007m	80°50'39.41674"W	0.005m	-21.717m	0.024m	
CP5345	27°09'53.75895"N	0.007m	80°38'24.56016"W	0.007m	-17.929m	0.024m	
CP5300	26°55'15.52359"N	0.012m	80°33'24.19726"W	0.013m	-21.015m	0.048m	
CP5341	26°43'32.19697"N	0.010m	80°38'08.33708"W	0.009m	-22.155m	0.029m	
CP5343	26°48'46.65584"N	0.011m	80°33'53.50969"W	0.011m	-21.628m	0.040m	
CP5301	26°37'38.90996"N	0.024m	80°25'10.39702"W	0.017m	-21.400m	0.039m	
CP5342	26°43'29.73604"N	0.021m	80°27'04.08632"W	0.015m	-22.106m	0.037m	
CP5337	26°40'39.67719"N	0.046m	80°32'19.26600"W	0.024m	-22.544m	0.044m	
CP5338	26°37'09.99806"N	0.011m	80°38'24.89708"W	0.009m	-22.242m	0.027m	
CP5316	26°29'50.55790"N	0.006m	80°39'48.03872"W	0.007m	-20.697m	0.019m	
CP5339	26°37'22.26654"N	0.010m	80°42'42.01719"W	0.009m	-21.299m	0.026m	
CP5334	26°29'13.52305"N	0.018m	80°34'57.09082"W	0.011m	-21.963m	0.039m	
CP5336	26°23'45.58523"N	0.006m	80°39'56.66948"W	0.007m	-20.944m	0.020m	
CP5340	26°39'10.96967"N	0.009m	80°46'22.26097"W	0.007m	-21.396m	0.023m	
CP5302	26°25'19.03053"N	0.009m	80°28'57.54041"W	0.011m	-21.914m	0.027m	
CP5333	26°21'49.35871"N	0.006m	80°33'35.17659"W	0.007m	-20.495m	0.021m	
CP5327	26°33'57.78460"N	0.009m	80°50'33.43864"W	0.008m	-20.694m	0.023m	
CP5317	26°26'57.09911"N	0.010m	80°48'50.96387"W	0.008m	-20.850m	0.028m	
CP5328	26°33'00.98080"N	0.008m	80°56'52.33359"W	0.007m	-19.095m	0.022m	
CP5330	26°35'04.13395"N	0.014m	81°04'45.55517"W	0.012m	-16.914m	0.034m	
CP5329	26°33'05.55755"N	0.011m	80°59'21.26378"W	0.011m	-19.221m	0.033m	
CP5332	26°35'16.76892"N	0.011m	81°00'27.74750"W	0.010m	-18.789m	0.031m	
CP5331	26°35'07.60641"N	0.011m	81°02'44.93746"W	0.011m	-17.771m	0.032m	
CP5315	26°26'03.15141"N	0.012m	80°57'10.71580"W	0.011m	-19.676m	0.027m	
CP5318	26°29'03.44782"N	0.012m	80°58'49.12761"W	0.011m	-19.076m	0.026m	
CP5326	26°28'37.64873"N	0.017m	80°56'48.32756"W	0.021m	-20.337m	0.041m	
CP5314	26°25'58.72602"N	0.008m	81°05'51.15186"W	0.008m	-17.075m	0.023m	
CP5322	26°28'53.72893"N	0.008m	81°07'30.22922"W	0.008m	-17.213m	0.024m	
CP5320	26°28'26.02060"N	0.011m	81°04'39.70281"W	0.010m	-17.221m	0.031m	

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CP5321	26°27'33.37726"N	0.007m	81°06'18.20557"W	0.008m	-17.725m	0.022m	
CP5319	26°28'33.59368"N	0.017m	81°01'42.65665"W	0.017m	-17.614m	0.053m	
CP5323	26°29'35.68825"N	0.019m	81°05'33.76431"W	0.016m	-17.178m	0.051m	
CP5324	26°29'34.35724"N	0.019m	81°05'12.16582"W	0.016m	-17.405m	0.052m	
CP5306	26°20'56.40085"N	0.006m	80°57'37.61887"W	0.006m	-19.355m	0.019m	
CP5313	26°24'28.95863"N	0.006m	80°59'57.06480"W	0.006m	-18.741m	0.018m	
CP5303	26°22'42.56631"N	0.006m	80°55'27.81416"W	0.006m	-20.489m	0.019m	
CP5304	26°22'07.19291"N	0.006m	80°55'49.39012"W	0.006m	-20.275m	0.018m	
CP5307	26°18'56.75460"N	0.006m	80°57'39.45677"W	0.007m	-20.029m	0.023m	
CP5312	26°19'58.50907"N	0.007m	81°00'07.85145"W	0.007m	-19.187m	0.023m	
CP5305	26°21'37.04937"N	0.006m	80°55'48.11685"W	0.006m	-20.245m	0.020m	
CP5308	26°18'57.10261"N	0.007m	80°56'54.74705"W	0.007m	-19.475m	0.022m	
CP5310	26°20'19.45658"N	0.007m	80°54'14.76503"W	0.007m	-20.611m	0.022m	
CP5309	26°19'00.20032"N	0.005m	80°53'44.29597"W	0.005m	-20.081m	0.019m	
CP5311	26°20'57.30468"N	0.006m	80°54'56.99837"W	0.006m	-20.832m	0.020m	

Coordinate Deltas

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1204	0.000m	0.000m	0.000m	0.000m	0.000m
CP1200	0.000m	0.000m	0.000m	0.000m	0.000m
CP1143	0.000m	0.000m	0.000m	0.000m	0.000m
CP1141	0.000m	0.000m	0.000m	0.000m	0.000m
CP1198	0.000m	0.000m	0.000m	0.000m	0.000m
G 489	0.000m	0.000m	0.000m	0.000m	0.000m
CP1139	0.000m	0.000m	0.000m	0.000m	0.000m
CP1144	0.000m	0.000m	0.000m	0.000m	0.000m
CP1142	0.000m	0.000m	0.000m	0.000m	0.000m
LICAN	0.000m	0.000m	0.000m	0.000m	0.000m
CP1138	0.000m	0.000m	0.000m	0.000m	0.000m
CP1137	0.000m	0.000m	0.000m	0.000m	0.000m
CP1140	0.000m	0.000m	0.000m	0.000m	0.000m
CP1145	0.000m	0.000m	0.000m	0.000m	0.000m
CP1247	0.000m	0.000m	0.000m	0.000m	0.000m
700-93-06-B08	0.000m	0.000m	0.000m	0.000m	0.000m
CP1241	0.000m	0.000m	0.000m	0.000m	0.000m
CP1192	0.000m	0.000m	0.000m	0.000m	0.000m
FDEM-PB1	0.000m	0.000m	0.000m	0.000m	0.000m
S 2 27	0.000m	0.000m	0.000m	0.000m	0.000m
CP1193	0.000m	0.000m	0.000m	0.000m	0.000m
CP1234	0.000m	0.000m	0.000m	0.000m	0.000m
CP1197	0.000m	0.000m	0.000m	0.000m	0.000m
C 414	0.000m	0.000m	0.000m	0.000m	0.000m
CP1211	0.000m	0.000m	0.000m	0.000m	0.000m
CP1153	0.000m	0.000m	0.000m	0.000m	0.000m
CP1305-PA1	0.000m	0.000m	0.000m	0.000m	0.000m
LO 7	0.000m	0.000m	0.000m	0.000m	0.000m
CP1151	0.000m	0.000m	0.000m	0.000m	0.000m
CP1148	0.000m	0.000m	0.000m	0.000m	0.000m
CP1303-PA1	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1219	0.000m	0.000m	0.000m	0.000m	0.000m
CP1304-PA1	0.000m	0.000m	0.000m	0.000m	0.000m
CP1150	0.000m	0.000m	0.000m	0.000m	0.000m
CP1147	0.000m	0.000m	0.000m	0.000m	0.000m
CP1222	0.000m	0.000m	0.000m	0.000m	0.000m
CP1218	0.000m	0.000m	0.000m	0.000m	0.000m
CP1157	0.000m	0.000m	0.000m	0.000m	0.000m
CP1154	0.000m	0.000m	0.000m	0.000m	0.000m
CP1214	0.000m	0.000m	0.000m	0.000m	0.000m
CP1302-PA1	0.000m	0.000m	0.000m	0.000m	0.000m
CP1149	0.000m	0.000m	0.000m	0.000m	0.000m
CP1146	0.000m	0.000m	0.000m	0.000m	0.000m
872 2625 1	0.000m	0.000m	0.000m	0.000m	0.000m
CP1152	0.000m	0.000m	0.000m	0.000m	0.000m
CP1209	0.000m	0.000m	0.000m	0.000m	0.000m
CP1155	0.000m	0.000m	0.000m	0.000m	0.000m
CP1301-PA1	0.000m	0.000m	0.000m	0.000m	0.000m
BRIDGE 2	0.000m	0.000m	0.000m	0.000m	0.000m
CP1156	0.000m	0.000m	0.000m	0.000m	0.000m
CP1213	0.000m	0.000m	0.000m	0.000m	0.000m
Q 519	0.000m	0.000m	0.000m	0.000m	0.000m
CP1085	0.000m	0.000m	0.000m	0.000m	0.000m
CP1090	0.000m	0.000m	0.000m	0.000m	0.000m
C 519	0.000m	0.000m	0.000m	0.000m	0.000m
CP1242	0.000m	0.000m	0.000m	0.000m	0.000m
CP1089	0.000m	0.000m	0.000m	0.000m	0.000m
CP1161	0.000m	0.000m	0.000m	0.000m	0.000m
Q 529	0.000m	0.000m	0.000m	0.000m	0.000m
CP1158	0.000m	0.000m	0.000m	0.000m	0.000m
CP1223	0.000m	0.000m	0.000m	0.000m	0.000m
CP1160	0.000m	0.000m	0.000m	0.000m	0.000m
CP1083	0.000m	0.000m	0.000m	0.000m	0.000m
CP1087	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1084	0.000m	0.000m	0.000m	0.000m	0.000m
CP1088	0.000m	0.000m	0.000m	0.000m	0.000m
AIRPORT	0.000m	0.000m	0.000m	0.000m	0.000m
CP1091	0.000m	0.000m	0.000m	0.000m	0.000m
CP1159	0.000m	0.000m	0.000m	0.000m	0.000m
CP1224	0.000m	0.000m	0.000m	0.000m	0.000m
Y 530	0.000m	0.000m	0.000m	0.000m	0.000m
CP1075	0.000m	0.000m	0.000m	0.000m	0.000m
CP1079	0.000m	0.000m	0.000m	0.000m	0.000m
CP1076	0.000m	0.000m	0.000m	0.000m	0.000m
CP1217	0.000m	0.000m	0.000m	0.000m	0.000m
CP1220	0.000m	0.000m	0.000m	0.000m	0.000m
CP1216	0.000m	0.000m	0.000m	0.000m	0.000m
CP1215	0.000m	0.000m	0.000m	0.000m	0.000m
CP1068	0.000m	0.000m	0.000m	0.000m	0.000m
CP1073	0.000m	0.000m	0.000m	0.000m	0.000m
CP1077	0.000m	0.000m	0.000m	0.000m	0.000m
CP1067	0.000m	0.000m	0.000m	0.000m	0.000m
CP1070	0.000m	0.000m	0.000m	0.000m	0.000m
CP1082	0.000m	0.000m	0.000m	0.000m	0.000m
CP1210	0.000m	0.000m	0.000m	0.000m	0.000m
CP1069	0.000m	0.000m	0.000m	0.000m	0.000m
CP1072	0.000m	0.000m	0.000m	0.000m	0.000m
CP1074	0.000m	0.000m	0.000m	0.000m	0.000m
CP1081	0.000m	0.000m	0.000m	0.000m	0.000m
CP1078	0.000m	0.000m	0.000m	0.000m	0.000m
FDEM-BC1	0.000m	0.000m	0.000m	0.000m	0.000m
CP1071	0.000m	0.000m	0.000m	0.000m	0.000m
CP1080	0.000m	0.000m	0.000m	0.000m	0.000m
CP1221	0.000m	0.000m	0.000m	0.000m	0.000m
CP1086	0.000m	0.000m	0.000m	0.000m	0.000m
A 524	0.000m	0.000m	0.000m	0.000m	0.000m
CP1057	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1207	0.000m	0.000m	0.000m	0.000m	0.000m
CP1058	0.000m	0.000m	0.000m	0.000m	0.000m
CP1061	0.000m	0.000m	0.000m	0.000m	0.000m
S 410 X	0.000m	0.000m	0.000m	0.000m	0.000m
CP1240	0.000m	0.000m	0.000m	0.000m	0.000m
CP1060	0.000m	0.000m	0.000m	0.000m	0.000m
CP1063	0.000m	0.000m	0.000m	0.000m	0.000m
Y 535	0.000m	0.000m	0.000m	0.000m	0.000m
CP1066	0.000m	0.000m	0.000m	0.000m	0.000m
CP1065	0.000m	0.000m	0.000m	0.000m	0.000m
CP1059	0.000m	0.000m	0.000m	0.000m	0.000m
CORNER AZ	0.000m	0.000m	0.000m	0.000m	0.000m
CP1243	0.000m	0.000m	0.000m	0.000m	0.000m
CP1201	0.000m	0.000m	0.000m	0.000m	0.000m
CP1250	0.000m	0.000m	0.000m	0.000m	0.000m
Y 555	0.000m	0.000m	0.000m	0.000m	0.000m
Star	0.000m	0.000m	0.000m	0.000m	0.000m
CP1205	0.000m	0.000m	0.000m	0.000m	0.000m
CP1208	0.000m	0.000m	0.000m	0.000m	0.000m
CP1203	0.000m	0.000m	0.000m	0.000m	0.000m
CP1053	0.000m	0.000m	0.000m	0.000m	0.000m
CP1055	0.000m	0.000m	0.000m	0.000m	0.000m
FLGPS 69	0.000m	0.000m	0.000m	0.000m	0.000m
CP1199	0.000m	0.000m	0.000m	0.000m	0.000m
CP1054	0.000m	0.000m	0.000m	0.000m	0.000m
CP1056	0.000m	0.000m	0.000m	0.000m	0.000m
V 486	0.000m	0.000m	0.000m	0.000m	0.000m
FDEM-S7	0.000m	0.000m	0.000m	0.000m	0.000m
CP1052	0.000m	0.000m	0.000m	0.000m	0.000m
CP1212	0.000m	0.000m	0.000m	0.000m	0.000m
CP1237	0.000m	0.000m	0.000m	0.000m	0.000m
CP1202	0.000m	0.000m	0.000m	0.000m	0.000m
CP1236	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1051	0.000m	0.000m	0.000m	0.000m	0.000m
FDEM-PS5	0.000m	0.000m	0.000m	0.000m	0.000m
CP1050	0.000m	0.000m	0.000m	0.000m	0.000m
D 537	0.000m	0.000m	0.000m	0.000m	0.000m
FDEM-BC2	0.000m	0.000m	0.000m	0.000m	0.000m
FISH	0.000m	0.000m	0.000m	0.000m	0.000m
CP1097	0.000m	0.000m	0.000m	0.000m	0.000m
CP1163	0.000m	0.000m	0.000m	0.000m	0.000m
CP1233	0.000m	0.000m	0.001m	0.001m	0.000m
CP1182	0.000m	0.000m	0.001m	0.001m	0.000m
K 518	0.000m	0.000m	0.000m	0.000m	0.000m
CP1102	0.000m	0.000m	0.000m	0.000m	0.000m
FLGPS 57	0.000m	0.000m	0.000m	0.000m	0.000m
CP1171	0.000m	0.000m	0.000m	0.000m	0.000m
CP1173	0.000m	0.000m	0.000m	0.000m	0.000m
CP1174	0.000m	0.000m	0.000m	0.000m	0.000m
CP1178	0.000m	0.000m	0.001m	0.001m	0.000m
CP1177	0.000m	0.000m	0.000m	0.000m	0.000m
CP1181	0.000m	0.000m	0.001m	0.001m	0.000m
CP1225	0.000m	0.000m	0.000m	0.000m	0.000m
CP1227	0.000m	0.000m	0.000m	0.000m	0.000m
CP1172	0.000m	0.000m	0.000m	0.000m	0.000m
CP1176	0.000m	0.000m	0.000m	0.000m	0.000m
K 523	0.000m	0.000m	0.000m	0.001m	-0.001m
CP1101	0.000m	0.000m	0.000m	0.000m	0.000m
CP1098	0.000m	0.000m	0.000m	0.000m	0.000m
CP1094	0.000m	0.000m	0.000m	0.000m	0.000m
CP1232	0.000m	0.000m	0.001m	0.001m	0.000m
CP1167	0.000m	0.000m	0.000m	0.000m	0.000m
CP1111	0.000m	0.000m	0.000m	0.000m	0.000m
CP1228	0.000m	0.000m	0.000m	0.000m	0.000m
CP1226	0.000m	0.000m	0.000m	0.000m	0.000m
CP1092	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1229	0.000m	0.000m	0.000m	0.000m	0.000m
CP1179	0.000m	0.000m	0.001m	0.001m	0.000m
CP1180	0.000m	0.000m	0.001m	0.001m	0.000m
CP1109	0.000m	0.000m	0.000m	0.000m	0.000m
CP1104	0.000m	0.000m	0.000m	0.000m	0.000m
CP1099	0.000m	0.000m	0.000m	0.000m	0.000m
CP1166	0.000m	0.000m	0.000m	0.000m	0.000m
CP1170	0.000m	0.000m	0.000m	0.000m	0.000m
CP1175	0.000m	0.000m	0.000m	0.000m	0.000m
CP1103	0.000m	0.000m	0.000m	0.000m	0.000m
CP1162	0.000m	0.000m	0.000m	0.000m	0.000m
CP1168	0.000m	0.000m	0.000m	0.000m	0.000m
CP1244	0.000m	0.000m	0.000m	0.000m	0.000m
CP1100	0.000m	0.000m	0.000m	0.000m	0.000m
CP1093	0.000m	0.000m	0.000m	0.000m	0.000m
CP1165	0.000m	0.000m	0.000m	0.000m	0.000m
CP1169	0.000m	0.000m	0.000m	0.000m	0.000m
CP1230	0.000m	0.000m	0.000m	0.000m	0.000m
CP1091a	0.000m	0.000m	0.000m	0.000m	0.000m
CP1096	0.000m	0.000m	0.000m	0.000m	0.000m
CP1095	0.000m	0.000m	0.000m	0.000m	0.000m
CP1164	0.000m	0.000m	0.000m	0.000m	0.000m
CP1231	0.000m	0.000m	0.000m	0.000m	0.000m
CP1110	0.000m	0.000m	0.000m	0.000m	0.000m
C 358	0.000m	0.000m	0.000m	0.001m	-0.001m
CP1112	0.000m	0.000m	0.001m	0.001m	0.000m
A 518	0.000m	0.000m	0.000m	0.000m	0.000m
CP1106	0.000m	0.000m	0.000m	0.000m	0.000m
CP1118	0.000m	0.000m	0.001m	0.001m	0.000m
CP1185	0.000m	0.000m	0.001m	0.001m	0.000m
CP1187	0.000m	0.000m	0.001m	0.001m	0.000m
CP1115	0.000m	0.000m	0.001m	0.001m	0.000m
CP1114	0.000m	0.000m	0.001m	0.001m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1186	0.000m	0.000m	0.001m	0.001m	0.000m
OKEEPORT RESET	0.000m	0.000m	0.000m	0.001m	-0.001m
CP1001	0.000m	0.000m	0.000m	0.000m	0.000m
CP1108	0.000m	0.000m	0.000m	0.000m	0.000m
B 529	0.000m	0.000m	0.000m	0.000m	0.000m
CP1119	0.000m	0.000m	0.001m	0.001m	0.000m
CP1117	0.000m	0.000m	0.001m	0.001m	0.000m
CP1113	0.000m	0.000m	0.001m	0.001m	0.000m
CP1107	0.000m	0.000m	0.000m	0.000m	0.000m
CP1116	0.000m	0.000m	0.001m	0.001m	0.000m
CP1183	0.000m	0.000m	0.001m	0.001m	0.000m
CP1120	0.000m	0.000m	0.001m	0.001m	0.000m
CP1122	0.000m	0.000m	0.000m	0.000m	0.000m
CP1105	0.000m	0.000m	0.000m	0.000m	0.000m
CP1003	0.000m	0.000m	0.001m	0.001m	0.000m
CP1184	0.000m	0.000m	0.001m	0.001m	0.000m
S 191 W	0.000m	0.000m	0.000m	0.000m	0.000m
CP1125	0.000m	0.000m	0.000m	0.000m	0.000m
CP1127	0.000m	0.000m	0.000m	0.000m	0.000m
CP1126	0.000m	0.000m	0.000m	0.000m	0.000m
CP1130	0.000m	0.000m	0.000m	0.000m	0.000m
CP1129	0.000m	0.000m	0.000m	0.000m	0.000m
CP1123	0.000m	0.000m	0.000m	0.000m	0.000m
CP1124	0.000m	0.000m	0.000m	0.000m	0.000m
CP1190	0.000m	0.000m	0.000m	0.000m	0.000m
CP1021	0.000m	0.000m	0.000m	0.000m	0.000m
CP1188	0.000m	0.000m	0.000m	0.000m	0.000m
CP1016	0.000m	0.000m	0.000m	0.000m	0.000m
CP1007	0.000m	0.000m	0.000m	0.000m	0.000m
CP1010	0.000m	0.000m	0.000m	0.000m	0.000m
CP1128	0.000m	0.000m	0.000m	0.000m	0.000m
CP1131	0.000m	0.000m	0.000m	0.000m	0.000m
L 048	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1132	0.000m	0.000m	0.000m	0.000m	0.000m
CP1134	0.000m	0.000m	0.000m	0.000m	0.000m
CP1019	0.000m	0.000m	0.000m	0.000m	0.000m
CP1121	0.000m	0.000m	0.000m	0.000m	0.000m
CP1011	0.000m	0.000m	0.000m	0.000m	0.000m
CP1020	0.000m	0.000m	0.000m	0.000m	0.000m
CP1017	0.000m	0.000m	0.000m	0.000m	0.000m
CP1006	0.000m	0.000m	0.000m	0.000m	0.000m
CP1004	0.000m	0.000m	0.000m	0.000m	0.000m
C T2	0.000m	0.000m	0.000m	0.000m	0.000m
R 543	0.000m	0.000m	0.000m	0.000m	0.000m
EDN 6 25	0.000m	0.000m	0.000m	0.000m	0.000m
CP1002	0.000m	0.000m	0.000m	0.000m	0.000m
CP1008	0.000m	0.000m	0.000m	0.000m	0.000m
CP1133	0.000m	0.000m	0.000m	0.000m	0.000m
CP1135	0.000m	0.000m	0.000m	0.000m	0.000m
CP1012	0.000m	0.000m	0.000m	0.000m	0.000m
CP1018	0.000m	0.000m	0.000m	0.000m	0.000m
CP1014	0.000m	0.000m	0.000m	0.000m	0.000m
CP1015	0.000m	0.000m	0.000m	0.000m	0.000m
CP1189	0.000m	0.000m	0.000m	0.000m	0.000m
CP1009	0.000m	0.000m	0.000m	0.000m	0.000m
CP1013	0.000m	0.000m	0.000m	0.000m	0.000m
CP1022	0.000m	0.000m	0.000m	0.000m	0.000m
CP1005	0.000m	0.000m	0.000m	0.000m	0.000m
CP1260	0.000m	0.000m	0.000m	0.000m	0.000m
CP1252	0.000m	0.000m	0.000m	0.000m	0.000m
CP1257	0.000m	0.000m	0.000m	0.000m	0.000m
CP1259	0.000m	0.000m	0.000m	0.000m	0.000m
CP1255	0.000m	0.000m	0.000m	0.000m	0.000m
CP1262	0.000m	0.000m	0.000m	0.000m	0.000m
CP1251	0.000m	0.000m	0.000m	0.000m	0.000m
CP1253	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP1254	0.000m	0.000m	0.000m	0.000m	0.000m
CP1258	0.000m	0.000m	0.000m	0.000m	0.000m
CP1256	0.000m	0.000m	0.000m	0.000m	0.000m
CP1064	0.000m	0.000m	0.000m	0.000m	0.000m
CP1261	0.000m	0.000m	0.000m	0.000m	0.000m
CP1062	0.000m	0.000m	0.000m	0.000m	0.000m
MF 41	0.000m	0.000m	0.000m	0.000m	0.000m
CP1041	0.000m	0.000m	0.000m	0.000m	0.000m
CP1029	0.000m	0.000m	0.000m	0.000m	0.000m
FLGPS 67	0.000m	0.000m	0.000m	0.000m	0.000m
CP1033	0.000m	0.000m	0.000m	0.000m	0.000m
CP1248	0.000m	0.000m	0.000m	0.000m	0.000m
CP1246	0.000m	0.000m	0.000m	0.000m	0.000m
CP1042	0.000m	0.000m	0.000m	0.000m	0.000m
CP1238	0.000m	0.000m	0.000m	0.000m	0.000m
CP1046	0.000m	0.000m	0.000m	0.000m	0.000m
CP1196	0.000m	0.000m	0.000m	0.000m	0.000m
CP1030	0.000m	0.000m	0.000m	0.000m	0.000m
CP1034	0.000m	0.000m	0.000m	0.000m	0.000m
CP1038	0.000m	0.000m	0.000m	0.000m	0.000m
CP1043	0.000m	0.000m	0.000m	0.000m	0.000m
CP1239	0.000m	0.000m	0.000m	0.000m	0.000m
CP1235	0.000m	0.000m	0.000m	0.000m	0.000m
CP1048	0.000m	0.000m	0.000m	0.000m	0.000m
CP1037	0.000m	0.000m	0.000m	0.000m	0.000m
CP1044	0.000m	0.000m	0.000m	0.000m	0.000m
CP1047	0.000m	0.000m	0.000m	0.000m	0.000m
CP1049	0.000m	0.000m	0.000m	0.000m	0.000m
CP1032	0.000m	0.000m	0.000m	0.000m	0.000m
CP1040	0.000m	0.000m	0.000m	0.000m	0.000m
CP1249	0.000m	0.000m	0.000m	0.000m	0.000m
B 548	0.000m	0.000m	0.000m	0.000m	0.000m
CP1036	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
C 547	0.000m	0.000m	0.000m	0.000m	0.000m
CP1025	0.000m	0.000m	0.000m	0.000m	0.000m
CP1194	0.000m	0.000m	0.000m	0.000m	0.000m
CP1245	0.000m	0.000m	0.000m	0.000m	0.000m
CP1136	0.000m	0.000m	0.000m	0.000m	0.000m
CP1191	0.000m	0.000m	0.000m	0.000m	0.000m
CP1027	0.000m	0.000m	0.000m	0.000m	0.000m
CP1024	0.000m	0.000m	0.000m	0.000m	0.000m
H 547	0.000m	0.000m	0.000m	0.000m	0.000m
CP1026	0.000m	0.000m	0.000m	0.000m	0.000m
CP1023	0.000m	0.000m	0.000m	0.000m	0.000m
CP1028	0.000m	0.000m	0.000m	0.000m	0.000m
CP1206	0.000m	0.000m	0.000m	0.000m	0.000m
CP2000	0.000m	0.000m	0.000m	0.000m	0.000m
CP2005	0.000m	0.000m	0.000m	0.000m	0.000m
CP2009	0.000m	0.000m	0.000m	0.000m	0.000m
K 413	0.000m	0.000m	0.000m	0.000m	0.000m
CP1031	0.000m	0.000m	0.000m	0.000m	0.000m
CP1035	0.000m	0.000m	0.000m	0.000m	0.000m
CP1039	0.000m	0.000m	0.000m	0.000m	0.000m
CP1195	0.000m	0.000m	0.000m	0.000m	0.000m
CP1045	0.000m	0.000m	0.000m	0.000m	0.000m
CP3000	0.000m	0.000m	0.000m	0.000m	0.000m
CP3004	0.000m	0.000m	0.000m	0.000m	0.000m
CP3003	0.000m	0.000m	0.000m	0.000m	0.000m
CP3005	0.000m	0.000m	0.000m	0.000m	0.000m
CP3006	0.000m	0.000m	0.000m	0.000m	0.000m
CP3002	0.000m	0.000m	0.000m	0.000m	0.000m
CP3008	0.000m	0.000m	0.000m	0.000m	0.000m
CP3010	0.000m	0.000m	0.000m	0.000m	0.000m
CP3001	0.000m	0.000m	0.000m	0.000m	0.000m
CP5116	0.000m	0.000m	0.000m	0.000m	0.000m
CP5112	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP5102	0.000m	0.000m	0.000m	0.000m	0.000m
CP5101	0.000m	0.000m	0.000m	0.000m	0.000m
CP5103	0.000m	0.000m	0.000m	0.000m	0.000m
CP5107	0.000m	0.000m	0.000m	0.000m	0.000m
CP5105	0.000m	0.000m	0.000m	0.000m	0.000m
CP5106	0.000m	0.000m	0.000m	0.000m	0.000m
CP5114A	0.000m	0.000m	0.000m	0.000m	0.000m
CP5114B	0.000m	0.000m	0.000m	0.000m	0.000m
CP5117	0.000m	0.000m	0.000m	0.000m	0.000m
CP5108	0.000m	0.000m	0.000m	0.000m	0.000m
CP5109	0.000m	0.000m	0.000m	0.000m	0.000m
CP5119	0.000m	0.000m	0.000m	0.000m	0.000m
CP5110	0.000m	0.000m	0.000m	0.000m	0.000m
CP5115	0.000m	0.000m	0.000m	0.000m	0.000m
CP5118	0.000m	0.000m	0.000m	0.000m	0.000m
CP5113	0.000m	0.000m	0.000m	0.000m	0.000m
CP5111	0.000m	0.000m	0.000m	0.000m	0.000m
CP5104	0.000m	0.000m	0.000m	0.000m	0.000m
CP5134	0.000m	0.000m	0.000m	0.000m	0.000m
CP5132	0.000m	0.000m	0.000m	0.000m	0.000m
CP5131	0.000m	0.000m	0.000m	0.000m	0.000m
CP5137	0.000m	0.000m	0.000m	0.000m	0.000m
CP5133	0.000m	0.000m	0.000m	0.000m	0.000m
CP1305	0.000m	0.000m	0.000m	0.000m	0.000m
CP5136	0.000m	0.000m	0.000m	0.000m	0.000m
CP5135	0.000m	0.000m	0.000m	0.000m	0.000m
CP5141	0.000m	0.000m	0.000m	0.000m	0.000m
CP5138	0.000m	0.000m	0.000m	0.000m	0.000m
CP5143	0.000m	0.000m	0.000m	0.000m	0.000m
CP5140	0.000m	0.000m	0.000m	0.000m	0.000m
CP5142	0.000m	0.000m	0.000m	0.000m	0.000m
CP5139	0.000m	0.000m	0.000m	0.000m	0.000m
CP5146	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP5145	0.000m	0.000m	0.000m	0.000m	0.000m
CP5144	0.000m	0.000m	0.000m	0.000m	0.000m
CP5148	0.000m	0.000m	0.000m	0.000m	0.000m
CP5147	0.000m	0.000m	0.000m	0.000m	0.000m
CP5149	0.000m	0.000m	0.000m	0.000m	0.000m
CP5152	0.000m	0.000m	0.000m	0.000m	0.000m
CP5150	0.000m	0.000m	0.000m	0.000m	0.000m
CP5151	0.000m	0.000m	0.000m	0.000m	0.000m
CP5154	0.000m	0.000m	0.000m	0.000m	0.000m
CP5153	0.000m	0.000m	0.000m	0.000m	0.000m
CP5155	0.000m	0.000m	0.000m	0.000m	0.000m
CP5120	0.000m	0.000m	0.000m	0.000m	0.000m
CP5129	0.000m	0.000m	0.000m	0.000m	0.000m
CP5130	0.000m	0.000m	0.000m	0.000m	0.000m
CP5122	0.000m	0.000m	0.000m	0.000m	0.000m
CP5123	0.000m	0.000m	0.000m	0.000m	0.000m
CP5121	0.000m	0.000m	0.000m	0.000m	0.000m
CP5128	0.000m	0.000m	0.000m	0.000m	0.000m
CP5127	0.000m	0.000m	0.000m	0.000m	0.000m
CP5156	0.000m	0.000m	0.001m	0.001m	0.000m
CP5157	0.000m	0.000m	0.001m	0.001m	0.000m
CP5158	0.000m	0.000m	0.001m	0.001m	0.000m
CP5159	0.000m	0.000m	0.001m	0.001m	0.000m
CP5161	0.000m	0.000m	0.001m	0.001m	0.000m
CP5162	0.000m	0.000m	0.001m	0.001m	0.000m
CP5160	0.000m	0.000m	0.001m	0.001m	0.000m
CP5163	0.000m	0.000m	0.001m	0.001m	0.000m
CP5165	0.000m	0.000m	0.001m	0.001m	0.000m
CP5164	0.000m	0.000m	0.001m	0.001m	0.000m
CP5166	0.000m	0.000m	0.001m	0.001m	0.000m
CP5167	0.000m	0.000m	0.001m	0.001m	0.000m
CP5170	0.000m	0.000m	0.001m	0.001m	0.000m
CP5169	0.000m	0.000m	0.001m	0.001m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP5168	0.000m	0.000m	0.001m	0.001m	0.000m
CP5173	0.000m	0.000m	0.001m	0.001m	0.000m
CP5171	0.000m	0.000m	0.001m	0.001m	0.000m
CP5172	0.000m	0.000m	0.001m	0.001m	0.000m
CP5175	0.000m	0.000m	0.001m	0.001m	0.000m
CP5174	0.000m	0.000m	0.001m	0.001m	0.000m
CP5190	0.000m	0.000m	0.001m	0.001m	0.000m
CP5191	0.000m	0.000m	0.001m	0.001m	0.000m
CP5188	0.000m	0.000m	0.001m	0.001m	0.000m
CP5189	0.000m	0.000m	0.001m	0.001m	0.000m
CP5186	0.000m	0.000m	0.001m	0.001m	0.000m
CP5185	0.000m	0.000m	0.001m	0.001m	0.000m
CP5187	0.000m	0.000m	0.001m	0.001m	0.000m
CP5231	0.000m	0.000m	0.001m	0.001m	0.000m
CP5195	0.000m	0.000m	0.001m	0.001m	0.000m
CP5227	0.000m	0.000m	0.001m	0.001m	0.000m
CP5230	0.000m	0.000m	0.001m	0.001m	0.000m
CP5229	0.000m	0.000m	0.001m	0.001m	0.000m
CP5228	0.000m	0.000m	0.001m	0.001m	0.000m
CP5222	0.000m	0.000m	0.001m	0.001m	0.000m
CP5224	0.000m	0.000m	0.001m	0.001m	0.000m
CP5223	0.000m	0.000m	0.001m	0.001m	0.000m
CP5226	0.000m	0.000m	0.001m	0.001m	0.000m
CP5225	0.000m	0.000m	0.001m	0.001m	0.000m
CP5221	0.000m	0.000m	0.001m	0.001m	0.000m
CP5219	0.000m	0.000m	0.001m	0.001m	0.000m
CP5220	0.000m	0.000m	0.001m	0.001m	0.000m
CP5217	0.000m	0.000m	0.001m	0.001m	0.000m
CP5216	0.000m	0.000m	0.001m	0.001m	0.000m
CP5218	0.000m	0.000m	0.001m	0.001m	0.000m
CP5214	0.000m	0.000m	0.001m	0.001m	0.000m
CP5213	0.000m	0.000m	0.001m	0.001m	0.000m
CP5215	0.000m	0.000m	0.001m	0.001m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP5212	0.000m	0.000m	0.001m	0.001m	0.000m
CP5210	0.000m	0.000m	0.001m	0.001m	0.000m
CP5211	0.000m	0.000m	0.001m	0.001m	0.000m
CP5207	0.000m	0.000m	0.001m	0.001m	0.000m
CP5208	0.000m	0.000m	0.001m	0.001m	0.000m
CP5209	0.000m	0.000m	0.001m	0.001m	0.000m
CP5205	0.000m	0.000m	0.001m	0.001m	0.000m
CP5206	0.000m	0.000m	0.001m	0.001m	0.000m
CP5204	0.000m	0.000m	0.001m	0.001m	0.000m
CP5202	0.000m	0.000m	0.001m	0.001m	0.000m
CP5203	0.000m	0.000m	0.001m	0.001m	0.000m
CP5200	0.000m	0.000m	0.001m	0.001m	0.000m
CP5201	0.000m	0.000m	0.001m	0.001m	0.000m
CP5199	0.000m	0.000m	0.001m	0.001m	0.000m
CP5197	0.000m	0.000m	0.001m	0.001m	0.000m
CP5198	0.000m	0.000m	0.001m	0.001m	0.000m
CP5196	0.000m	0.000m	0.001m	0.001m	0.000m
CP5194	0.000m	0.000m	0.001m	0.001m	0.000m
CP5192	0.000m	0.000m	0.001m	0.001m	0.000m
CP5193	0.000m	0.000m	0.001m	0.001m	0.000m
CP5182	0.000m	0.000m	0.001m	0.001m	0.000m
CP5181	0.000m	0.000m	0.001m	0.001m	0.000m
CP5179	0.000m	0.000m	0.001m	0.001m	0.000m
CP5183	0.000m	0.000m	0.001m	0.001m	0.000m
CP5180	0.000m	0.000m	0.001m	0.001m	0.000m
CP5184	0.000m	0.000m	0.001m	0.001m	0.000m
CP5177	0.000m	0.000m	0.001m	0.001m	0.000m
CP5178	0.000m	0.000m	0.001m	0.001m	0.000m
CP5125	0.000m	0.000m	0.000m	0.000m	0.000m
CP5126	0.000m	0.000m	0.000m	0.000m	0.000m
CP5124	0.000m	0.000m	0.000m	0.000m	0.000m
CP5176	0.000m	0.000m	0.001m	0.001m	0.000m
CP5345	0.000m	0.000m	0.000m	0.000m	0.000m

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP5300	0.000m	0.000m	0.000m	0.000m	0.000m
CP5341	0.000m	0.000m	0.000m	0.000m	0.000m
CP5343	0.000m	0.000m	0.000m	0.000m	0.000m
CP5301	0.000m	0.000m	0.000m	0.000m	0.000m
CP5342	0.000m	0.000m	0.000m	0.000m	0.000m
CP5337	0.000m	0.000m	0.000m	0.000m	0.000m
CP5338	0.000m	0.000m	0.000m	0.000m	0.000m
CP5316	0.000m	0.000m	0.000m	0.000m	0.000m
CP5339	0.000m	0.000m	0.000m	0.000m	0.000m
CP5334	0.000m	0.000m	0.000m	0.000m	0.000m
CP5336	0.000m	0.000m	0.000m	0.000m	0.000m
CP5340	0.000m	0.000m	0.000m	0.000m	0.000m
CP5302	0.000m	0.000m	0.000m	0.000m	0.000m
CP5333	0.000m	0.000m	0.000m	0.000m	0.000m
CP5327	0.000m	0.000m	0.000m	0.000m	0.000m
CP5317	0.000m	0.000m	0.000m	0.000m	0.000m
CP5328	0.000m	0.000m	0.000m	0.000m	0.000m
CP5330	0.000m	0.000m	0.000m	0.000m	0.000m
CP5329	0.000m	0.000m	0.000m	0.000m	0.000m
CP5332	0.000m	0.000m	0.000m	0.000m	0.000m
CP5331	0.000m	0.000m	0.000m	0.000m	0.000m
CP5315	0.000m	0.000m	0.000m	0.000m	0.000m
CP5318	0.000m	0.000m	0.000m	0.000m	0.000m
CP5326	0.000m	0.000m	0.000m	0.000m	0.000m
CP5314	0.000m	0.000m	0.000m	0.000m	0.000m
CP5322	0.000m	0.000m	0.000m	0.000m	0.000m
CP5320	0.000m	0.000m	0.000m	0.000m	0.000m
CP5321	0.000m	0.000m	0.000m	0.000m	0.000m
CP5319	0.000m	0.000m	0.000m	0.000m	0.000m
CP5323	0.000m	0.000m	0.000m	0.000m	0.000m
CP5324	0.000m	0.000m	0.000m	0.000m	0.000m
CP5306	0.000m	0.000m	0.000m	0.000m	0.000m
CP5313	0.000m	0.000m	0.000m	0.000m	0.000m

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight	ΔGeoid Separation
CP5303	0.000m	0.000m	0.000m	0.000m	0.000m
CP5304	0.000m	0.000m	0.000m	0.000m	0.000m
CP5307	0.000m	0.000m	0.000m	0.000m	0.000m
CP5312	0.000m	0.000m	0.000m	0.000m	0.000m
CP5305	0.000m	0.000m	0.000m	0.000m	0.000m
CP5308	0.000m	0.000m	0.000m	0.000m	0.000m
CP5310	0.000m	0.000m	0.000m	0.000m	0.000m
CP5309	0.000m	0.000m	0.000m	0.000m	0.000m
CP5311	0.000m	0.000m	0.000m	0.000m	0.000m

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Control Coordinate Comparisons

Values shown are control coord minus adjusted coord.

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight
CP1141	N/A	N/A	N/A	N/A
G 489	N/A	N/A	N/A	N/A
LICAN	N/A	N/A	N/A	N/A
CP1138	N/A	N/A	N/A	N/A
CP1137	N/A	N/A	N/A	N/A
S 2 27	N/A	N/A	N/A	N/A
CP1234	N/A	N/A	N/A	N/A
C 414	N/A	N/A	N/A	N/A
CP1211	N/A	N/A	N/A	N/A
LO 7	N/A	N/A	N/A	0.013m
CP1146	N/A	N/A	N/A	N/A
872 2625 1	N/A	N/A	N/A	N/A
CP1155	N/A	N/A	N/A	N/A
BRIDGE 2	-0.078m	0.028m	N/A	N/A
Q 519	N/A	N/A	N/A	N/A
C 519	N/A	N/A	N/A	N/A
Q 529	N/A	N/A	N/A	N/A
CP1087	N/A	N/A	N/A	N/A
AIRPORT	N/A	N/A	N/A	N/A
Y 530	N/A	N/A	N/A	N/A
CP1215	N/A	N/A	N/A	N/A
CP1068	N/A	N/A	N/A	N/A
CP1069	N/A	N/A	N/A	N/A
CP1078	N/A	N/A	N/A	N/A
A 524	N/A	N/A	N/A	N/A
CP1058	N/A	N/A	N/A	N/A
S 410 X	N/A	N/A	N/A	N/A
Y 535	N/A	N/A	N/A	N/A
CP1059	N/A	N/A	N/A	N/A

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Point Name	ΔNorthing	ΔEasting	ΔElevation	ΔHeight
CORNER AZ	N/A	N/A	N/A	N/A
Y 555	N/A	N/A	N/A	N/A
Star	N/A	N/A	N/A	N/A
CP1205	N/A	N/A	N/A	N/A
CP1053	N/A	N/A	N/A	N/A
FLGPS 69	N/A	N/A	N/A	N/A
CP1054	N/A	N/A	N/A	N/A
CP1056	N/A	N/A	N/A	N/A
V 486	N/A	N/A	N/A	N/A
CP1051	N/A	N/A	N/A	N/A
D 537	N/A	N/A	N/A	N/A
FISH	N/A	N/A	N/A	N/A
K 518	N/A	N/A	N/A	N/A
FLGPS 57	N/A	N/A	N/A	N/A
K 523	N/A	N/A	N/A	N/A
C 358	N/A	N/A	N/A	N/A
A 518	N/A	N/A	N/A	N/A
OKEEPORT RESET	N/A	N/A	N/A	N/A
B 529	N/A	N/A	N/A	N/A
S 191 W	N/A	N/A	N/A	N/A
L 048	N/A	N/A	N/A	N/A
C T2	N/A	N/A	N/A	0.056m
R 543	N/A	N/A	N/A	N/A
EDN 6 25	N/A	N/A	N/A	N/A
MF 41	N/A	N/A	N/A	N/A
FLGPS 67	N/A	N/A	N/A	N/A
B 548	N/A	N/A	N/A	N/A
C 547	N/A	N/A	N/A	N/A
H 547	N/A	N/A	N/A	N/A
K 413	N/A	N/A	N/A	N/A

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Adjusted Observations

Adjustment performed in NAD 1983 (Conus)

GPS Observations

GPS Transformation Group: <GPS Default>

Deflection in Longitude : 0°00'00.0348" **(1.96σ)** : 0°00'00.0550"
Deflection in Latitude : 0°00'00.0135" **(1.96σ)** : 0°00'00.0643"
Azimuth Rotation : -0°00'00.0238" **(1.96σ)** : 0°00'00.0112"
Network Scale : 0.99999988 **(1.96σ)** : 0.00000006
Number of Observations : 1289
Number of Outliers : 0

Observation Adjustment (Critical Tau = 4.38). Any outliers are in red.

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B648	CP1250	V 486	**Az.**	245°56'10.5573"	0°00'00.0915"	0°00'00.3638"	4.13
			ΔHt.	1.979m	0.015m	0.005m	1.57
			Dist.	7296.233m	0.004m	0.008m	1.72
B657	CP1052	CP1053	**Az.**	179°54'01.6235"	0°00'00.1205"	0°00'00.0249"	1.13
			ΔHt.	2.841m	0.008m	0.001m	1.10
			Dist.	4812.575m	0.003m	-0.003m	-3.99
B1942	CP5114A	CP5106	**Az.**	202°37'48.9780"	0°00'01.2357"	0°00'04.0197"	3.79
			ΔHt.	-0.552m	0.010m	-0.007m	-0.64
			Dist.	666.279m	0.004m	-0.015m	-3.98
B783	CP1051	D 537	**Az.**	73°33'46.6946"	0°00'00.0652"	0°00'00.2087"	3.98
			ΔHt.	2.542m	0.013m	-0.011m	-1.26
			Dist.	13055.962m	0.004m	-0.004m	-1.07
B1341	CP1011	C T2	**Az.**	46°28'49.4037"	0°00'00.0622"	-0°00'00.0758"	-0.98
			ΔHt.	-0.662m	0.023m	-0.003m	-0.20
			Dist.	16177.306m	0.004m	0.019m	3.97
B1856	CP1050	CP1049	**Az.**	93°34'22.8921"	0°00'00.2246"	-0°00'00.4030"	-3.92
			ΔHt.	0.407m	0.012m	-0.004m	-0.84
			Dist.	3174.380m	0.004m	0.003m	1.99

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B115	FDEM-PB1	LO 7	**Az.**	271°42'14.3790"	0°00'00.0208"	-0°00'00.0796"	-1.92
			ΔHt.	3.623m	0.012m	0.004m	0.45
			Dist.	18705.384m	0.002m	-0.016m	-3.84
B1115	CP1118	CP1117	**Az.**	270°02'49.7568"	0°00'00.3495"	0°00'00.3768"	3.28
			ΔHt.	0.176m	0.015m	-0.006m	-1.63
			Dist.	3549.098m	0.005m	-0.005m	-3.75
B261	CP1213	BRIDGE 2	**Az.**	121°37'19.5151"	0°00'00.1504"	-0°00'00.0254"	-0.36
			ΔHt.	1.264m	0.012m	0.023m	3.67
			Dist.	6017.889m	0.005m	-0.003m	-0.93
B364	BRIDGE 2	CP1216	**Az.**	217°47'18.0297"	0°00'00.1830"	0°00'00.5637"	2.16
			ΔHt.	-2.012m	0.021m	0.022m	0.87
			Dist.	9411.366m	0.007m	0.027m	3.64
B262	CP1209	BRIDGE 2	**Az.**	260°09'55.2651"	0°00'00.0888"	-0°00'00.1040"	-1.16
			ΔHt.	1.670m	0.011m	-0.034m	-3.44
			Dist.	9565.823m	0.005m	0.020m	3.59
B1609	D 537	CP1048	**Az.**	23°09'48.3842"	0°00'00.1092"	0°00'00.0751"	0.54
			ΔHt.	-2.189m	0.013m	-0.004m	-0.32
			Dist.	5404.503m	0.003m	0.013m	3.53
B650	CP1203	FDEM-S7	**Az.**	143°50'31.3941"	0°00'00.1176"	0°00'00.1377"	1.84
			ΔHt.	3.869m	0.014m	0.001m	0.07
			Dist.	8634.700m	0.005m	-0.012m	-3.51
B2146	CP1038	B 548	**Az.**	6°50'30.4579"	0°00'00.0929"	0°00'00.2648"	3.49
			ΔHt.	-0.109m	0.011m	0.007m	1.16
			Dist.	9002.401m	0.004m	-0.008m	-1.98
B826	C 519	CP1094	**Az.**	58°17'46.9914"	0°00'00.1013"	-0°00'00.3718"	-3.49
			ΔHt.	0.722m	0.015m	-0.023m	-2.12
			Dist.	11573.063m	0.004m	-0.002m	-0.56
B238	FDEM-PB1	CP1156	**Az.**	286°43'16.9865"	0°00'00.0440"	-0°00'00.0521"	-1.95
			ΔHt.	1.046m	0.019m	0.046m	3.46
			Dist.	33319.484m	0.011m	-0.002m	-0.31
B338	BRIDGE 2	CP1217	**Az.**	230°09'03.5136"	0°00'00.1166"	0°00'00.1761"	1.27
			ΔHt.	0.127m	0.023m	-0.021m	-0.54
			Dist.	16823.529m	0.008m	0.040m	3.46
B773	CP1050	D 537	**Az.**	143°31'48.7053"	0°00'00.0988"	0°00'00.3194"	3.45
			ΔHt.	0.510m	0.011m	0.000m	-0.04
			Dist.	7202.337m	0.004m	0.009m	2.45

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B792	C 519	FISH	**Az.**	34°46'54.5631"	0°00'00.0112"	-0°00'00.4596"	-3.45
			ΔHt.	0.988m	0.014m	-0.021m	-1.67
			Dist.	10442.889m	0.001m	0.005m	1.13
B1907	CP1213	CP3010	**Az.**	345°32'30.0028"	0°00'00.2101"	-0°00'00.3043"	-1.83
			ΔHt.	0.583m	0.021m	-0.003m	-0.13
			Dist.	6706.997m	0.007m	0.017m	3.44
B1632	CP1197	CP1196	**Az.**	121°41'05.7522"	0°00'00.1367"	-0°00'00.0600"	-0.42
			ΔHt.	-0.461m	0.018m	-0.013m	-0.65
			Dist.	9466.160m	0.006m	-0.021m	-3.42
B932	CP1093	CP1098	**Az.**	301°20'53.2782"	0°00'00.1839"	0°00'00.1165"	1.28
			ΔHt.	3.648m	0.014m	0.001m	0.14
			Dist.	4896.080m	0.007m	0.011m	3.35
B673	CP1212	CP1237	**Az.**	90°43'16.0118"	0°00'00.0587"	0°00'00.0607"	0.93
			ΔHt.	-1.232m	0.011m	-0.033m	-3.31
			Dist.	14915.365m	0.005m	-0.004m	-0.71
B919	CP1226	CP1244	**Az.**	53°11'01.7275"	0°00'00.1519"	0°00'00.2826"	3.28
			ΔHt.	-1.447m	0.014m	0.012m	1.82
			Dist.	7507.737m	0.005m	0.006m	2.01
B1560	CP1091a	CP1091	**Az.**	273°35'36.8101"	0°00'04.7154"	-0°00'00.9170"	-0.88
			ΔHt.	0.090m	0.008m	-0.005m	-3.18
			Dist.	128.103m	0.003m	-0.002m	-3.27
B656	FLGPS 69	CP1054	**Az.**	216°08'02.7150"	0°00'00.2128"	-0°00'00.2461"	-3.25
			ΔHt.	0.377m	0.010m	0.006m	1.78
			Dist.	3481.796m	0.003m	0.000m	0.36
B1085	CP1233	CP1186	**Az.**	317°32'17.2285"	0°00'00.3048"	0°00'00.4309"	3.24
			ΔHt.	-0.577m	0.020m	0.011m	1.35
			Dist.	4131.349m	0.008m	0.001m	0.21
B365	CP1215	BRIDGE 2	**Az.**	72°13'29.4754"	0°00'00.0982"	-0°00'00.0696"	-0.56
			ΔHt.	0.768m	0.016m	0.007m	0.27
			Dist.	11080.829m	0.006m	0.031m	3.22
B1815	K 413	CP1049	**Az.**	180°54'13.1983"	0°00'00.6759"	0°00'01.1082"	2.07
			ΔHt.	2.878m	0.012m	-0.005m	-0.77
			Dist.	872.412m	0.003m	0.007m	3.19
B1825	CP1195	CP1239	**Az.**	276°35'59.8360"	0°00'00.1650"	0°00'00.0854"	1.71
			ΔHt.	-0.904m	0.007m	-0.005m	-3.18
			Dist.	4553.549m	0.003m	0.002m	2.03

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B809	CP1178	CP1177	**Az.**	212°01'54.4886"	0°00'00.5101"	-0°00'02.6898"	-2.34
			ΔHt.	3.250m	0.022m	-0.041m	-2.13
			Dist.	3125.752m	0.008m	0.050m	3.16
B263	CP1209	CP1204	**Az.**	94°23'18.7571"	0°00'00.1269"	0°00'00.1278"	0.79
			ΔHt.	-0.896m	0.009m	0.016m	1.20
			Dist.	5652.538m	0.003m	-0.012m	-3.16
B1232	CP1016	CP1130	**Az.**	224°34'21.5265"	0°00'00.1675"	0°00'00.3720"	1.41
			ΔHt.	-3.725m	0.012m	-0.022m	-1.15
			Dist.	5237.175m	0.005m	-0.016m	-3.11
B1342	R 543	CP1011	**Az.**	279°24'14.3906"	0°00'00.0429"	0°00'00.2092"	3.08
			ΔHt.	0.658m	0.018m	0.014m	0.84
			Dist.	21731.915m	0.004m	-0.008m	-0.93
B1220	S 191 W	CP1124	**Az.**	5°46'16.7015"	0°00'02.8951"	0°00'00.5727"	1.04
			ΔHt.	-4.100m	0.012m	0.007m	3.07
			Dist.	227.140m	0.004m	-0.001m	-1.15
B1391	R 543	CP1012	**Az.**	276°47'10.8425"	0°00'00.0627"	0°00'00.2038"	3.07
			ΔHt.	1.095m	0.017m	0.016m	1.20
			Dist.	17955.122m	0.006m	-0.006m	-0.90
B131	LO 7	CP1150	**Az.**	138°11'13.2163"	0°00'00.2902"	0°00'00.0106"	0.04
			ΔHt.	-2.370m	0.013m	0.025m	2.07
			Dist.	2400.496m	0.003m	-0.012m	-3.03
B1877	CP1199	CP3004	**Az.**	324°56'36.9771"	0°00'00.1842"	-0°00'00.3571"	-2.15
			ΔHt.	0.691m	0.018m	-0.010m	-0.66
			Dist.	6817.118m	0.008m	-0.024m	-3.03
B1123	CP1110	C 358	**Az.**	12°51'23.2109"	0°00'00.0850"	0°00'00.2451"	1.90
			ΔHt.	1.091m	0.024m	-0.034m	-1.56
			Dist.	12961.631m	0.006m	0.030m	3.02
B1808	K 413	CP1048	**Az.**	114°55'19.3415"	0°00'00.1550"	0°00'00.4106"	3.02
			ΔHt.	0.792m	0.012m	-0.003m	-0.37
			Dist.	3554.106m	0.003m	0.002m	1.08
B531	Q 519	CP1086	**Az.**	75°00'21.2522"	0°00'00.0671"	-0°00'00.3143"	-2.99
			ΔHt.	-1.553m	0.017m	0.056m	2.33
			Dist.	21010.120m	0.008m	0.031m	2.78
B1197	C 358	CP1113	**Az.**	162°26'09.5228"	0°00'00.1324"	0°00'00.3397"	2.97
			ΔHt.	-1.565m	0.016m	-0.015m	-1.20
			Dist.	8354.215m	0.005m	0.003m	0.62

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1973	CP5107	CP5110	**Az.**	113°49'41.6532"	0°00'02.2533"	0°00'01.7575"	2.48
			ΔHt.	-0.155m	0.015m	-0.014m	-2.94
			Dist.	473.047m	0.005m	0.000m	0.13
B1962	CP5106	CP5110	**Az.**	103°59'02.8186"	0°00'01.5091"	-0°00'02.1383"	-2.35
			ΔHt.	-1.007m	0.016m	0.029m	2.92
			Dist.	812.558m	0.005m	0.001m	0.36
B1874	CP1238	CP3000	**Az.**	146°10'24.1175"	0°00'00.5088"	-0°00'00.4365"	-1.89
			ΔHt.	-0.836m	0.011m	0.013m	2.60
			Dist.	1423.953m	0.004m	0.006m	2.92
B1025	CP1171	CP1172	**Az.**	39°16'32.2847"	0°00'00.2037"	0°00'00.0043"	0.06
			ΔHt.	-0.029m	0.005m	0.003m	1.52
			Dist.	2119.803m	0.003m	0.003m	2.90
B70	FDEM-PB1	CP1141	**Az.**	329°40'51.6198"	0°00'00.1220"	-0°00'00.0721"	-0.46
			ΔHt.	-0.060m	0.005m	0.013m	1.95
			Dist.	3496.083m	0.002m	0.008m	2.86
B710	CP1051	CP1052	**Az.**	180°24'57.7108"	0°00'00.1351"	0°00'00.0423"	0.34
			ΔHt.	0.462m	0.018m	0.042m	2.86
			Dist.	8619.669m	0.006m	-0.015m	-2.75
B1326	CP1016	R 543	**Az.**	72°45'56.6062"	0°00'00.0618"	0°00'00.1718"	2.86
			ΔHt.	-0.642m	0.015m	0.004m	0.41
			Dist.	14650.152m	0.005m	-0.007m	-1.53
B1000	C 519	CP1095	**Az.**	38°03'21.9570"	0°00'00.1410"	-0°00'00.3693"	-2.85
			ΔHt.	2.703m	0.015m	-0.016m	-1.71
			Dist.	9100.177m	0.004m	0.003m	0.76
B1182	CP1184	CP1185	**Az.**	21°38'59.2919"	0°00'00.4911"	-0°00'00.1465"	-0.74
			ΔHt.	0.291m	0.019m	-0.022m	-2.84
			Dist.	2531.234m	0.007m	0.006m	2.16
B1344	CP1017	R 543	**Az.**	68°11'57.8760"	0°00'00.0581"	0°00'00.2148"	2.84
			ΔHt.	-0.942m	0.014m	-0.011m	-0.97
			Dist.	13124.779m	0.004m	-0.005m	-0.85
B810	CP1177	CP1178	**Az.**	32°01'27.1008"	0°00'00.5100"	-0°00'00.2816"	-1.09
			ΔHt.	-3.250m	0.022m	-0.006m	-0.50
			Dist.	3125.752m	0.008m	0.016m	2.78
B667	CP1208	CP1205	**Az.**	80°19'24.6403"	0°00'00.0701"	-0°00'00.1890"	-2.78
			ΔHt.	-0.061m	0.009m	-0.016m	-2.25
			Dist.	9456.049m	0.004m	0.001m	0.12

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1090	CP1185	CP1118	**Az.**	317°05'48.4308"	0°00'00.1203"	0°00'00.1161"	0.90
			ΔHt.	2.781m	0.013m	-0.038m	-2.76
			Dist.	7662.290m	0.005m	0.011m	1.96
B1283	CP1126	CP1011	**Az.**	28°22'12.4188"	0°00'00.2810"	-0°00'00.3025"	-0.77
			ΔHt.	2.862m	0.012m	-0.043m	-2.22
			Dist.	3751.097m	0.004m	0.017m	2.73
B272	CP1161	Q 529	**Az.**	269°34'57.6508"	0°00'00.0630"	0°00'00.0198"	0.24
			ΔHt.	1.818m	0.012m	0.016m	2.02
			Dist.	9483.437m	0.004m	0.012m	2.73
B1100	CP1113	CP1233	**Az.**	87°02'54.7634"	0°00'00.1741"	0°00'00.2821"	1.95
			ΔHt.	-0.275m	0.021m	-0.024m	-1.70
			Dist.	8464.729m	0.007m	-0.015m	-2.71
B2118	CP3000	CP5130	**Az.**	122°58'23.4929"	0°00'00.2250"	-0°00'00.0563"	-0.52
			ΔHt.	0.611m	0.011m	0.006m	1.15
			Dist.	3277.623m	0.004m	0.005m	2.70
B117	FDEM-PB1	C 414	**Az.**	253°32'20.8870"	0°00'00.0328"	-0°00'00.2154"	-2.28
			ΔHt.	8.273m	0.007m	-0.024m	-2.69
			Dist.	11231.154m	0.002m	0.000m	0.06
B1446	R 543	CP1013	**Az.**	271°42'19.7896"	0°00'00.0997"	0°00'00.2182"	2.69
			ΔHt.	1.341m	0.022m	-0.008m	-0.59
			Dist.	16664.637m	0.010m	-0.015m	-2.14
B314	Q 519	CP1087	**Az.**	65°26'44.2884"	0°00'00.0346"	-0°00'00.1030"	-2.69
			ΔHt.	-1.713m	0.012m	-0.002m	-0.22
			Dist.	22621.611m	0.004m	0.009m	1.74
B150	FDEM-PB1	CP1304-PA1	**Az.**	273°11'26.7450"	0°00'00.0344"	0°00'00.0644"	1.58
			ΔHt.	1.532m	0.011m	-0.032m	-2.69
			Dist.	23678.757m	0.005m	0.005m	0.76
B1742	CP1029	H 547	**Az.**	3°46'52.7523"	0°00'00.0504"	-0°00'00.1132"	-2.68
			ΔHt.	-0.193m	0.012m	-0.003m	-0.74
			Dist.	14015.235m	0.003m	0.002m	1.09
B1522	CP1213	CP1214	**Az.**	353°55'30.6679"	0°00'00.1114"	-0°00'00.1347"	-1.11
			ΔHt.	0.029m	0.013m	-0.005m	-0.32
			Dist.	8122.426m	0.004m	-0.010m	-2.66
B890	CP1094	CP1098	**Az.**	357°41'22.7270"	0°00'00.3026"	-0°00'00.2940"	-1.54
			ΔHt.	0.556m	0.013m	-0.008m	-1.12
			Dist.	3586.642m	0.005m	0.008m	2.66

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B501	AIRPORT	CP1221	**Az.**	187°23'09.4833"	0°00'00.2040"	-0°00'00.2306"	-1.31
			ΔHt.	1.015m	0.028m	-0.017m	-0.71
			Dist.	7074.677m	0.008m	-0.020m	-2.66
B1946	CP5114A	CP5114B	**Az.**	85°37'01.9662"	0°00'01.6184"	0°00'01.5703"	2.65
			ΔHt.	-1.238m	0.013m	0.004m	0.87
			Dist.	601.245m	0.004m	-0.001m	-0.71
B825	FISH	CP1098	**Az.**	73°48'22.7055"	0°00'00.1735"	0°00'00.3945"	2.65
			ΔHt.	0.289m	0.009m	0.006m	0.84
			Dist.	3896.654m	0.003m	0.000m	0.01
B1844	CP1038	CP1039	**Az.**	183°31'56.7455"	0°00'00.3934"	0°00'00.7769"	2.62
			ΔHt.	-0.659m	0.006m	-0.002m	-0.52
			Dist.	1135.480m	0.002m	0.003m	1.82
B998	CP1096	K 518	**Az.**	353°03'19.0132"	0°00'00.0406"	-0°00'00.1427"	-2.60
			ΔHt.	24.629m	0.025m	-0.019m	-0.67
			Dist.	14617.504m	0.004m	-0.005m	-1.05
B161	CP1218	CP1214	**Az.**	52°31'33.7909"	0°00'00.2100"	-0°00'00.3627"	-2.59
			ΔHt.	-1.374m	0.023m	0.006m	0.35
			Dist.	7057.107m	0.007m	-0.003m	-0.67
B370	CP1068	CP1217	**Az.**	49°34'06.4349"	0°00'00.2879"	0°00'00.1451"	1.05
			ΔHt.	-1.541m	0.020m	-0.002m	-0.20
			Dist.	6327.640m	0.006m	0.009m	2.58
B2133	CP1045	CP1042	**Az.**	72°05'50.7503"	0°00'00.1218"	0°00'00.2037"	2.58
			ΔHt.	-0.903m	0.007m	-0.001m	-0.34
			Dist.	4452.427m	0.002m	0.002m	1.77
B229	CP1211	BRIDGE 2	**Az.**	188°54'12.4405"	0°00'00.1229"	0°00'00.2898"	2.30
			ΔHt.	1.390m	0.011m	-0.024m	-2.43
			Dist.	8133.039m	0.004m	0.012m	2.58
B1839	CP1195	CP1238	**Az.**	98°18'31.7901"	0°00'00.1418"	0°00'00.1127"	1.04
			ΔHt.	-0.826m	0.011m	0.004m	0.68
			Dist.	7180.512m	0.005m	0.008m	2.57
B1201	CP1183	CP1184	**Az.**	25°34'55.3145"	0°00'00.4408"	-0°00'00.0669"	-0.30
			ΔHt.	-1.027m	0.017m	0.004m	0.55
			Dist.	2619.252m	0.006m	0.008m	2.56
B1028	CP1231	CP1177	**Az.**	135°52'26.1764"	0°00'00.3056"	-0°00'00.2694"	-1.32
			ΔHt.	-0.344m	0.018m	-0.012m	-0.93
			Dist.	3938.096m	0.006m	-0.010m	-2.55

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1890	CP1236	CP3004	**Az.**	246°11'15.7853"	0°00'00.3528"	0°00'00.4753"	2.55
			ΔHt.	1.705m	0.016m	-0.004m	-0.60
			Dist.	4083.467m	0.006m	0.002m	0.78
B916	CP1225	CP1093	**Az.**	244°06'10.2961"	0°00'00.2613"	0°00'00.6795"	2.54
			ΔHt.	-2.018m	0.017m	0.017m	1.04
			Dist.	5430.645m	0.006m	0.009m	1.62
B681	Y 555	CP1236	**Az.**	41°13'13.2964"	0°00'00.2278"	-0°00'00.0281"	-0.50
			ΔHt.	0.207m	0.012m	-0.007m	-2.06
			Dist.	4140.658m	0.004m	0.003m	2.54
B507	CP1220	CP1221	**Az.**	345°40'52.8455"	0°00'00.1469"	-0°00'00.2008"	-2.52
			ΔHt.	-0.196m	0.025m	0.008m	0.54
			Dist.	10103.545m	0.007m	-0.006m	-1.65
B1219	CP1123	CP1122	**Az.**	252°30'45.5534"	0°00'00.7155"	0°00'00.6109"	1.91
			ΔHt.	-6.360m	0.026m	0.037m	2.51
			Dist.	3496.174m	0.008m	0.007m	1.13
B1273	CP1001	CP1121	**Az.**	248°28'20.4349"	0°00'01.2329"	-0°00'03.1300"	-1.47
			ΔHt.	-2.044m	0.043m	-0.124m	-1.61
			Dist.	2880.581m	0.010m	0.024m	2.51
B107	C 414	CP1148	**Az.**	289°35'15.4205"	0°00'00.3918"	-0°00'00.3414"	-2.50
			ΔHt.	-6.747m	0.006m	-0.001m	-0.87
			Dist.	1196.337m	0.002m	0.000m	-0.67
B2453	CP5308	CP5311	**Az.**	41°25'38.6729"	0°00'00.2141"	0°00'00.2239"	2.47
			ΔHt.	-1.357m	0.013m	-0.004m	-0.85
			Dist.	4934.332m	0.005m	-0.001m	-0.74
B1896	CP1209	CP3006	**Az.**	102°47'15.3739"	0°00'00.2026"	-0°00'00.2127"	-2.47
			ΔHt.	0.483m	0.012m	-0.009m	-1.63
			Dist.	3772.059m	0.004m	0.002m	1.52
B793	A 524	CP1163	**Az.**	183°37'39.3686"	0°00'00.6644"	0°00'00.0706"	0.30
			ΔHt.	-4.532m	0.010m	-0.002m	-0.69
			Dist.	1161.940m	0.003m	0.003m	2.46
B827	A 524	CP1161	**Az.**	160°25'02.0205"	0°00'00.1132"	0°00'00.2784"	2.46
			ΔHt.	-5.848m	0.010m	0.001m	0.12
			Dist.	6413.563m	0.003m	-0.002m	-0.58
B906	CP1103	CP1109	**Az.**	56°27'32.0063"	0°00'00.1408"	-0°00'00.3417"	-2.45
			ΔHt.	-1.753m	0.017m	0.000m	-0.03
			Dist.	11536.926m	0.006m	0.000m	0.05

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1795	CP1304-PA1	CP2009	**Az.**	129°15'57.6708"	0°00'00.2037"	0°00'00.0939"	0.93
			ΔHt.	-1.327m	0.010m	-0.015m	-2.45
			Dist.	4182.188m	0.005m	0.001m	0.59
B126	FDEM-PB1	CP1153	**Az.**	279°37'23.4174"	0°00'00.0258"	0°00'00.0180"	0.79
			ΔHt.	3.826m	0.009m	0.019m	2.44
			Dist.	26060.814m	0.004m	-0.005m	-1.56
B914	CP1103	CP1102	**Az.**	236°44'12.9564"	0°00'01.3424"	0°00'00.9199"	1.98
			ΔHt.	1.050m	0.013m	0.009m	2.42
			Dist.	1252.812m	0.004m	-0.001m	-1.04
B188	C 414	CP1209	**Az.**	168°43'49.1056"	0°00'00.0408"	0°00'00.0973"	1.32
			ΔHt.	-7.502m	0.007m	-0.009m	-0.85
			Dist.	12864.344m	0.003m	-0.014m	-2.42
B761	CP1051	CP1236	**Az.**	298°02'54.8301"	0°00'00.1660"	0°00'00.0599"	0.24
			ΔHt.	-1.198m	0.021m	0.035m	1.12
			Dist.	8183.273m	0.007m	0.022m	2.42
B1803	CP1194	CP1239	**Az.**	105°17'07.9549"	0°00'00.0906"	-0°00'00.3469"	-2.40
			ΔHt.	1.436m	0.010m	-0.016m	-1.18
			Dist.	7569.835m	0.004m	0.004m	0.99
B1010	CP1095	FISH	**Az.**	13°51'26.3880"	0°00'00.8493"	-0°00'01.3340"	-2.40
			ΔHt.	-1.715m	0.014m	-0.016m	-1.89
			Dist.	1453.666m	0.004m	0.007m	2.35
B2355	CP5339	CP5336	**Az.**	169°39'58.5611"	0°00'00.0645"	0°00'00.0803"	2.37
			ΔHt.	0.352m	0.025m	-0.017m	-1.25
			Dist.	25548.274m	0.010m	-0.011m	-2.29
B576	CP1059	S 410 X	**Az.**	282°32'19.7884"	0°00'00.1160"	-0°00'00.4320"	-2.37
			ΔHt.	0.600m	0.024m	-0.007m	-0.21
			Dist.	10926.837m	0.007m	0.022m	1.38
B1610	CP1235	CP1196	**Az.**	244°45'47.1029"	0°00'00.1787"	-0°00'00.1952"	-2.36
			ΔHt.	-0.635m	0.017m	-0.002m	-0.25
			Dist.	7633.243m	0.005m	0.002m	0.94
B329	CP1224	CP1242	**Az.**	177°34'24.5737"	0°00'00.1239"	-0°00'00.0315"	-0.44
			ΔHt.	1.484m	0.012m	0.012m	2.27
			Dist.	8768.935m	0.005m	0.006m	2.36
B1549	CP1063	CP1064	**Az.**	338°14'23.5257"	0°00'00.2487"	-0°00'00.2489"	-2.35
			ΔHt.	0.013m	0.008m	0.004m	1.20
			Dist.	2596.527m	0.003m	0.002m	2.01

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1027	CP1231	CP1177	**Az.**	135°52'26.1764"	0°00'00.3056"	-0°00'00.5952"	-1.23
			ΔHt.	-0.344m	0.018m	0.054m	2.35
			Dist.	3938.096m	0.006m	0.000m	0.04
B529	CP1161	A 524	**Az.**	340°25'37.2078"	0°00'00.1132"	-0°00'00.3966"	-2.35
			ΔHt.	5.848m	0.010m	-0.001m	-0.08
			Dist.	6413.563m	0.003m	-0.008m	-2.01
B300	CP1242	CP1223	**Az.**	81°45'20.0695"	0°00'00.1760"	-0°00'00.0659"	-1.89
			ΔHt.	0.351m	0.009m	0.003m	2.35
			Dist.	4025.451m	0.004m	-0.001m	-0.71
B1718	CP1248	CP1239	**Az.**	217°53'30.6418"	0°00'00.1302"	-0°00'00.0192"	-0.53
			ΔHt.	-0.698m	0.006m	0.003m	2.34
			Dist.	4214.906m	0.002m	0.000m	0.47
B1128	CP1110	CP1112	**Az.**	55°51'02.3195"	0°00'00.4553"	-0°00'00.3232"	-0.67
			ΔHt.	-0.949m	0.028m	0.004m	0.15
			Dist.	3680.678m	0.008m	0.015m	2.33
B1099	CP1117	CP1233	**Az.**	184°48'52.5644"	0°00'00.1459"	-0°00'00.1367"	-2.33
			ΔHt.	-1.146m	0.018m	-0.004m	-0.54
			Dist.	8361.660m	0.007m	-0.007m	-1.84
B1237	CP1124	CP1123	**Az.**	293°12'59.4799"	0°00'00.6412"	0°00'02.4277"	1.45
			ΔHt.	4.050m	0.027m	0.042m	2.32
			Dist.	3634.442m	0.010m	0.024m	1.33
B1947	CP5114A	CP5117	**Az.**	358°32'56.8612"	0°00'00.9724"	-0°00'00.3344"	-0.51
			ΔHt.	-0.595m	0.013m	0.006m	0.58
			Dist.	812.743m	0.005m	-0.008m	-2.31
B612	CP1146	CP1145	**Az.**	87°36'56.3500"	0°00'00.2964"	0°00'00.2075"	2.31
			ΔHt.	6.829m	0.007m	-0.003m	-1.82
			Dist.	1997.731m	0.004m	0.000m	-0.07
B1990	CP1247	CP1142	**Az.**	240°26'47.4456"	0°00'00.0830"	0°00'00.3922"	2.31
			ΔHt.	1.196m	0.008m	-0.015m	-0.97
			Dist.	6492.157m	0.003m	0.006m	1.42
B821	CP1176	CP1177	**Az.**	28°46'10.9081"	0°00'00.4671"	0°00'00.2035"	0.69
			ΔHt.	3.650m	0.020m	-0.019m	-1.21
			Dist.	3065.237m	0.006m	0.008m	2.30
B239	FDEM-PB1	CP1301-PA1	**Az.**	267°07'42.7324"	0°00'00.0291"	0°00'00.0456"	1.79
			ΔHt.	0.757m	0.011m	0.022m	2.02
			Dist.	23893.067m	0.004m	-0.008m	-2.29

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B659	CP1212	CP1208	**Az.**	127°35'18.8896"	0°00'00.0965"	-0°00'00.1917"	-2.29
			ΔHt.	-1.152m	0.014m	0.004m	0.56
			Dist.	11902.331m	0.005m	0.000m	-0.08
B801	K 518	CP1102	**Az.**	112°56'09.6315"	0°00'00.1605"	-0°00'00.0953"	-0.68
			ΔHt.	-26.695m	0.025m	-0.007m	-0.40
			Dist.	8407.854m	0.008m	0.015m	2.28
B542	A 524	CP1160	**Az.**	146°52'15.6633"	0°00'00.1062"	-0°00'00.1410"	-0.86
			ΔHt.	-5.535m	0.012m	0.009m	0.80
			Dist.	8247.983m	0.004m	-0.010m	-2.28
B584	CP1057	CP1059	**Az.**	269°34'46.3004"	0°00'00.2103"	-0°00'00.2473"	-1.92
			ΔHt.	0.794m	0.019m	0.001m	0.08
			Dist.	5612.302m	0.007m	0.009m	2.28
B116	C 414	FDEM-PB1	**Az.**	73°29'25.7714"	0°00'00.0328"	-0°00'00.0060"	-0.13
			ΔHt.	-8.273m	0.007m	0.015m	2.28
			Dist.	11231.154m	0.002m	-0.003m	-0.88
B820	CP1176	CP1177	**Az.**	28°46'10.9081"	0°00'00.4671"	0°00'03.2942"	2.28
			ΔHt.	3.650m	0.020m	0.013m	0.67
			Dist.	3065.237m	0.006m	-0.019m	-1.83
B1074	CP1233	CP1187	**Az.**	51°27'23.2222"	0°00'00.3058"	0°00'00.2556"	0.86
			ΔHt.	-3.042m	0.023m	0.027m	1.26
			Dist.	6146.620m	0.008m	-0.018m	-2.27
B170	CP1148	CP1149	**Az.**	264°15'29.3164"	0°00'00.2860"	-0°00'00.2077"	-2.27
			ΔHt.	-0.076m	0.006m	-0.004m	-1.88
			Dist.	1679.680m	0.003m	0.000m	0.42
B1663	CP1038	CP1040	**Az.**	233°48'07.7667"	0°00'00.3083"	0°00'00.2346"	1.23
			ΔHt.	-0.189m	0.007m	0.003m	0.62
			Dist.	1898.722m	0.003m	0.005m	2.25
B165	CP1146	872 2625 1	**Az.**	118°20'30.6024"	0°00'00.1361"	0°00'00.0484"	0.47
			ΔHt.	0.733m	0.007m	0.001m	0.46
			Dist.	4307.873m	0.002m	-0.003m	-2.25
B935	CP1244	CP1229	**Az.**	71°04'24.2538"	0°00'00.1144"	0°00'00.1198"	2.25
			ΔHt.	-0.947m	0.011m	0.003m	0.67
			Dist.	7049.456m	0.004m	0.002m	0.97
B15	CP1140	LICAN	**Az.**	330°50'22.1813"	0°00'00.4402"	-0°00'00.1926"	-1.50
			ΔHt.	7.024m	0.006m	0.001m	0.51
			Dist.	931.113m	0.002m	0.001m	2.25

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2144	CP1042	CP5130	**Az.**	305°23'34.0184"	0°00'00.1161"	0°00'00.0061"	0.11
			ΔHt.	0.698m	0.008m	-0.001m	-0.16
			Dist.	4943.135m	0.003m	0.003m	2.25
B1112	CP1108	CP1107	**Az.**	277°20'26.1610"	0°00'00.2175"	-0°00'00.1106"	-1.23
			ΔHt.	2.092m	0.010m	0.005m	1.72
			Dist.	3790.264m	0.005m	0.005m	2.24
B59	S 2 27	CP1144	**Az.**	341°50'59.2639"	0°00'00.9315"	0°00'01.3033"	2.23
			ΔHt.	-7.695m	0.009m	-0.003m	-0.94
			Dist.	591.808m	0.002m	0.002m	1.26
B1872	CP1234	CP1194	**Az.**	86°23'16.9480"	0°00'00.1422"	0°00'00.3068"	2.23
			ΔHt.	-1.446m	0.013m	0.012m	1.62
			Dist.	7217.874m	0.005m	-0.003m	-1.03
B1733	CP1245	CP1191	**Az.**	72°19'19.9973"	0°00'00.1659"	0°00'00.0908"	2.23
			ΔHt.	1.247m	0.012m	0.006m	2.06
			Dist.	4963.914m	0.004m	0.002m	1.78
B1035	CP1227	CP1168	**Az.**	121°45'15.1520"	0°00'00.1494"	-0°00'00.0340"	-0.37
			ΔHt.	0.265m	0.006m	0.004m	0.92
			Dist.	3345.045m	0.003m	0.004m	2.23
B1519	CP1064	CP1251	**Az.**	63°44'22.8312"	0°00'00.1307"	-0°00'00.1247"	-2.22
			ΔHt.	2.128m	0.006m	0.002m	1.01
			Dist.	3699.248m	0.003m	-0.001m	-1.10
B346	CP1220	CP1213	**Az.**	86°16'09.0190"	0°00'00.0839"	0°00'00.2942"	2.22
			ΔHt.	-2.470m	0.018m	0.004m	0.19
			Dist.	14509.685m	0.007m	-0.019m	-1.78
B2356	CP5339	CP5340	**Az.**	298°47'22.9322"	0°00'00.2768"	0°00'00.0136"	0.07
			ΔHt.	-0.096m	0.022m	-0.005m	-0.38
			Dist.	6949.873m	0.010m	-0.015m	-2.22
B1097	CP1108	B 529	**Az.**	345°20'51.6281"	0°00'00.1056"	0°00'00.1681"	2.22
			ΔHt.	1.059m	0.013m	-0.007m	-1.19
			Dist.	8767.734m	0.004m	0.001m	0.33
B845	CP1101	CP1102	**Az.**	31°37'34.0474"	0°00'00.5347"	0°00'00.2279"	0.72
			ΔHt.	-0.739m	0.016m	-0.009m	-1.47
			Dist.	3802.203m	0.007m	-0.008m	-2.21
B463	Y 530	FDEM-BC1	**Az.**	137°34'21.7584"	0°00'00.0299"	0°00'00.1876"	0.95
			ΔHt.	-1.753m	0.021m	0.029m	0.82
			Dist.	19967.645m	0.003m	-0.023m	-2.20

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1037	CP1231	CP1110	**Az.**	294°11'55.7003"	0°00'00.2015"	0°00'00.1230"	1.09
			ΔHt.	-1.324m	0.025m	-0.007m	-0.60
			Dist.	8372.398m	0.007m	-0.008m	-2.20
B1350	CP1008	S 191 W	**Az.**	243°06'20.3097"	0°00'00.2128"	0°00'00.1045"	0.85
			ΔHt.	1.065m	0.011m	0.002m	0.35
			Dist.	4387.800m	0.004m	-0.004m	-2.18
B1597	CP1248	CP1030	**Az.**	359°54'08.7170"	0°00'00.1398"	-0°00'00.0378"	-0.09
			ΔHt.	-0.155m	0.007m	-0.002m	-0.12
			Dist.	3965.572m	0.004m	0.033m	2.18
B1843	CP1034	CP1035	**Az.**	120°51'42.2212"	0°00'00.8090"	-0°00'00.7324"	-2.18
			ΔHt.	-0.145m	0.021m	-0.006m	-0.78
			Dist.	1366.493m	0.008m	0.004m	1.21
B420	CP1068	CP1210	**Az.**	97°09'16.3004"	0°00'00.0873"	0°00'00.0540"	0.35
			ΔHt.	-1.799m	0.014m	-0.019m	-0.68
			Dist.	11426.293m	0.006m	0.023m	2.17
B2413	CP1068	CP5318	**Az.**	34°08'33.1632"	0°00'00.3305"	-0°00'00.4817"	-2.17
			ΔHt.	-1.746m	0.023m	0.012m	0.80
			Dist.	7056.474m	0.011m	-0.022m	-1.98
B704	CP1051	CP1199	**Az.**	244°21'58.1414"	0°00'00.1639"	0°00'00.2653"	1.18
			ΔHt.	-0.184m	0.019m	0.056m	2.16
			Dist.	7815.617m	0.006m	0.007m	0.93
B265	Q 519	CP1085	**Az.**	71°33'14.6461"	0°00'00.0438"	-0°00'00.0862"	-2.16
			ΔHt.	-1.911m	0.012m	-0.009m	-1.03
			Dist.	21707.910m	0.006m	0.006m	1.14
B1514	CP1213	CP1260	**Az.**	20°14'43.4774"	0°00'00.1800"	0°00'00.2219"	2.16
			ΔHt.	0.973m	0.018m	-0.009m	-0.87
			Dist.	6887.378m	0.006m	-0.002m	-0.62
B1700	CP1036	CP1040	**Az.**	144°50'41.5023"	0°00'00.0963"	-0°00'00.2732"	-2.15
			ΔHt.	-1.140m	0.010m	0.001m	0.12
			Dist.	9290.398m	0.004m	-0.002m	-0.56
B620	CP1197	CP1241	**Az.**	240°06'20.7672"	0°00'00.1328"	-0°00'00.2681"	-2.14
			ΔHt.	0.480m	0.011m	0.000m	0.01
			Dist.	6545.202m	0.004m	-0.005m	-1.37
B2045	CP1170	CP5148	**Az.**	93°19'34.3202"	0°00'01.1783"	-0°00'00.5175"	-0.59
			ΔHt.	-0.378m	0.008m	-0.002m	-0.29
			Dist.	601.451m	0.003m	-0.004m	-2.14

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B317	CP1223	CP1159	**Az.**	30°15'30.6211"	0°00'00.1026"	0°00'00.0970"	0.99
			ΔHt.	-2.159m	0.016m	-0.007m	-0.34
			Dist.	10728.518m	0.007m	0.015m	2.13
B2414	CP1068	CP5326	**Az.**	55°21'41.0290"	0°00'00.3044"	-0°00'00.0309"	-0.18
			ΔHt.	-3.008m	0.039m	0.043m	1.83
			Dist.	8880.590m	0.023m	-0.031m	-2.13
B2381	CP5338	CP5334	**Az.**	158°34'13.2449"	0°00'00.1532"	-0°00'00.2314"	-1.02
			ΔHt.	0.277m	0.037m	-0.118m	-2.12
			Dist.	15752.074m	0.018m	0.036m	1.06
B232	CP1157	CP1156	**Az.**	94°15'07.1219"	0°00'00.4270"	-0°00'00.3165"	-1.18
			ΔHt.	-0.336m	0.017m	-0.016m	-2.12
			Dist.	4039.331m	0.010m	-0.004m	-0.74
B982	CP1098	CP1226	**Az.**	38°15'24.1962"	0°00'00.2223"	0°00'01.1836"	2.11
			ΔHt.	-2.314m	0.010m	-0.003m	-0.39
			Dist.	4014.323m	0.004m	-0.010m	-2.12
B305	CP1222	AIRPORT	**Az.**	202°39'56.1296"	0°00'00.3976"	0°00'00.2212"	1.39
			ΔHt.	-0.102m	0.011m	-0.002m	-1.00
			Dist.	1720.354m	0.004m	0.005m	2.11
B183	CP1147	CP1146	**Az.**	120°30'01.3441"	0°00'00.4538"	0°00'00.4399"	2.11
			ΔHt.	0.149m	0.006m	-0.004m	-1.79
			Dist.	1363.911m	0.002m	-0.001m	-0.91
B12	LICAN	CP1139	**Az.**	358°14'28.5810"	0°00'00.3100"	0°00'00.3220"	2.11
			ΔHt.	-6.197m	0.011m	-0.006m	-1.30
			Dist.	2410.940m	0.003m	-0.003m	-1.93
B549	Q 529	CP1091	**Az.**	311°15'30.3007"	0°00'00.2730"	-0°00'00.2326"	-2.10
			ΔHt.	1.064m	0.013m	0.007m	0.90
			Dist.	3009.640m	0.005m	0.003m	1.45
B772	BRIDGE 2	CP1212	**Az.**	167°46'31.3395"	0°00'00.1359"	-0°00'00.0192"	-0.61
			ΔHt.	-0.718m	0.006m	-0.003m	-2.09
			Dist.	4950.015m	0.003m	-0.001m	-1.20
B1846	CP1195	CP1048	**Az.**	173°40'03.4413"	0°00'00.0919"	0°00'00.0387"	0.65
			ΔHt.	-0.957m	0.010m	0.010m	2.09
			Dist.	8319.405m	0.005m	0.003m	0.68
B1775	CP1191	CP1206	**Az.**	134°49'21.9921"	0°00'00.1178"	-0°00'00.0375"	-0.66
			ΔHt.	0.016m	0.019m	0.015m	1.58
			Dist.	9046.596m	0.007m	0.007m	2.08

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1022	CP1225	CP1093	**Az.**	244°06'10.2961"	0°00'00.2613"	0°00'01.2523"	2.08
			ΔHt.	-2.018m	0.017m	-0.036m	-1.06
			Dist.	5430.645m	0.006m	0.017m	1.23
B641	CP1199	Y 555	**Az.**	324°44'36.4587"	0°00'00.2032"	0°00'00.1873"	2.08
			ΔHt.	-1.222m	0.014m	-0.006m	-0.82
			Dist.	5039.480m	0.006m	0.002m	0.89
B194	CP1209	872 2625 1	**Az.**	20°52'13.6629"	0°00'00.0510"	-0°00'00.0865"	-1.13
			ΔHt.	1.736m	0.008m	0.003m	0.31
			Dist.	9815.200m	0.003m	-0.012m	-2.08
B799	CP1233	CP1182	**Az.**	113°19'06.7620"	0°00'00.2129"	0°00'00.5178"	2.08
			ΔHt.	-2.095m	0.023m	-0.020m	-0.69
			Dist.	6918.369m	0.008m	0.000m	0.00
B1993	CP1198	CP5111	**Az.**	298°22'16.5247"	0°00'00.2134"	-0°00'00.3998"	-2.08
			ΔHt.	-1.993m	0.018m	-0.028m	-1.41
			Dist.	5320.597m	0.006m	0.005m	0.95
B1950	CP1144	CP5108	**Az.**	99°21'05.2318"	0°00'00.1786"	-0°00'00.1537"	-2.07
			ΔHt.	-1.611m	0.009m	0.004m	0.89
			Dist.	3449.824m	0.003m	0.000m	-0.28
B1968	CP1144	CP5109	**Az.**	109°44'41.4394"	0°00'00.2059"	-0°00'00.2108"	-2.07
			ΔHt.	-0.910m	0.009m	0.006m	1.27
			Dist.	3110.494m	0.003m	-0.001m	-0.56
B1476	CP1214	CP1262	**Az.**	197°38'59.7088"	0°00'00.1239"	-0°00'00.0375"	-0.47
			ΔHt.	-0.196m	0.019m	0.003m	0.20
			Dist.	10188.867m	0.005m	-0.007m	-2.07
B1202	C 358	CP1116	**Az.**	85°23'55.6018"	0°00'00.1708"	0°00'00.2120"	2.07
			ΔHt.	-1.123m	0.019m	-0.004m	-0.39
			Dist.	7810.387m	0.007m	-0.005m	-1.15
B1955	CP5101	CP5102	**Az.**	198°53'33.6386"	0°00'01.0968"	0°00'00.2649"	0.46
			ΔHt.	0.390m	0.014m	-0.002m	-0.22
			Dist.	924.580m	0.004m	-0.003m	-2.07
B1897	CP1237	CP3006	**Az.**	333°57'30.3484"	0°00'00.1559"	-0°00'00.1601"	-1.27
			ΔHt.	0.764m	0.014m	0.024m	2.07
			Dist.	6495.995m	0.004m	-0.003m	-1.20
B187	C 414	CP1209	**Az.**	168°43'49.1056"	0°00'00.0408"	0°00'00.0942"	2.06
			ΔHt.	-7.502m	0.007m	0.001m	0.21
			Dist.	12864.344m	0.003m	0.001m	0.68

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1787	Star	CP1023	**Az.**	75°23'31.1543"	0°00'00.1961"	0°00'00.1953"	1.84
			ΔHt.	-3.513m	0.012m	0.000m	0.07
			Dist.	4844.163m	0.003m	0.003m	2.06
B1039	CP1231	CP1232	**Az.**	32°00'42.6614"	0°00'00.3198"	0°00'00.1665"	0.97
			ΔHt.	-3.418m	0.024m	0.018m	1.20
			Dist.	5037.764m	0.007m	-0.010m	-2.05
B302	CP1084	CP1242	**Az.**	67°55'59.2707"	0°00'00.2104"	-0°00'00.4391"	-2.04
			ΔHt.	-0.080m	0.014m	0.004m	0.34
			Dist.	5359.887m	0.007m	0.005m	0.69
B2463	CP5307	CP5309	**Az.**	89°03'14.5411"	0°00'00.1902"	0°00'00.0777"	0.38
			ΔHt.	-0.053m	0.018m	0.013m	0.65
			Dist.	6523.185m	0.006m	-0.017m	-2.04
B128	FDEM-PB1	CP1148	**Az.**	256°50'46.2950"	0°00'00.0408"	0°00'00.0358"	0.77
			ΔHt.	1.527m	0.008m	-0.019m	-2.03
			Dist.	12218.164m	0.003m	0.000m	-0.11
B2136	CP1038	CP1039	**Az.**	183°31'56.7455"	0°00'00.3934"	-0°00'00.4937"	-2.03
			ΔHt.	-0.659m	0.006m	0.004m	0.55
			Dist.	1135.480m	0.002m	-0.001m	-0.80
B1203	CP1111	CP1110	**Az.**	59°06'09.2639"	0°00'00.3758"	-0°00'00.4368"	-1.74
			ΔHt.	-0.275m	0.017m	0.009m	0.91
			Dist.	3237.764m	0.007m	0.009m	2.03
B1094	CP1118	OKEEPORT RESET	**Az.**	61°56'17.0413"	0°00'00.1790"	0°00'00.0316"	0.22
			ΔHt.	0.209m	0.014m	-0.009m	-0.95
			Dist.	5394.793m	0.004m	-0.007m	-2.02
B1859	CP1035	B 548	**Az.**	108°08'49.4148"	0°00'00.1121"	-0°00'00.1502"	-1.61
			ΔHt.	-0.848m	0.020m	-0.016m	-1.19
			Dist.	8126.648m	0.006m	0.011m	2.02
B135	CP1147	C 414	**Az.**	304°11'46.1135"	0°00'00.4159"	0°00'00.0487"	0.26
			ΔHt.	6.647m	0.005m	0.002m	1.06
			Dist.	1259.571m	0.002m	-0.002m	-2.02
B154	CP1147	FDEM-PB1	**Az.**	68°09'28.5675"	0°00'00.0567"	-0°00'00.0805"	-1.05
			ΔHt.	-1.626m	0.008m	0.015m	2.01
			Dist.	10478.814m	0.003m	0.004m	1.02
B1833	FDEM-PS5	CP1050	**Az.**	136°08'28.4137"	0°00'00.5113"	-0°00'00.1047"	-0.17
			ΔHt.	-0.423m	0.005m	0.004m	0.62
			Dist.	789.462m	0.002m	0.005m	2.01

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B616	Star	CP1137	**Az.**	192°40'16.1143"	0°00'00.1504"	-0°00'00.4303"	-2.01
			ΔHt.	-4.552m	0.019m	0.008m	0.30
			Dist.	9082.479m	0.005m	0.005m	0.58
B151	FDEM-PB1	CP1150	**Az.**	265°52'04.8898"	0°00'00.0361"	0°00'00.0553"	0.96
			ΔHt.	1.253m	0.009m	0.028m	2.00
			Dist.	17143.901m	0.004m	0.000m	0.06
B57	CP1141	CP1140	**Az.**	342°02'17.2384"	0°00'00.2584"	-0°00'00.3592"	-2.00
			ΔHt.	-0.119m	0.008m	-0.002m	-0.64
			Dist.	2138.475m	0.002m	0.003m	1.73
B266	CP1090	C 519	**Az.**	273°12'19.9827"	0°00'00.0564"	-0°00'00.2402"	-2.00
			ΔHt.	2.455m	0.019m	0.005m	0.18
			Dist.	14726.383m	0.005m	0.008m	0.65
B1951	CP5117	CP5108	**Az.**	0°59'34.7573"	0°00'00.4768"	-0°00'00.0774"	-0.43
			ΔHt.	-0.407m	0.008m	-0.003m	-0.81
			Dist.	1193.797m	0.003m	-0.002m	-1.99
B541	Q 529	CP1087	**Az.**	203°11'26.2868"	0°00'00.0994"	-0°00'00.0484"	-0.52
			ΔHt.	0.276m	0.011m	-0.002m	-0.19
			Dist.	8669.382m	0.004m	0.006m	1.99
B106	LO 7	CP1151	**Az.**	296°59'28.8477"	0°00'00.2576"	-0°00'00.1376"	-1.39
			ΔHt.	-1.718m	0.010m	-0.001m	-0.19
			Dist.	2843.053m	0.004m	0.003m	1.99
B1383	CP1011	CP1012	**Az.**	111°29'47.4728"	0°00'00.2609"	0°00'00.2902"	1.98
			ΔHt.	0.436m	0.013m	0.004m	0.47
			Dist.	3883.101m	0.006m	-0.006m	-1.46
B387	Q 519	CP1082	**Az.**	91°23'14.1789"	0°00'00.0417"	-0°00'00.0108"	-0.32
			ΔHt.	0.223m	0.011m	0.015m	1.97
			Dist.	21747.021m	0.005m	-0.004m	-1.10
B306	CP1083	CP1084	**Az.**	341°59'11.0828"	0°00'01.0888"	-0°00'00.4758"	-0.81
			ΔHt.	-0.107m	0.013m	0.012m	1.97
			Dist.	1259.937m	0.005m	0.003m	0.97
B560	CP1057	CP1207	**Az.**	337°29'20.1270"	0°00'00.0916"	-0°00'00.2105"	-1.97
			ΔHt.	-0.934m	0.012m	0.014m	0.81
			Dist.	9620.949m	0.004m	0.007m	1.77
B1656	CP1042	CP1040	**Az.**	43°21'53.6108"	0°00'00.3077"	0°00'00.2912"	1.97
			ΔHt.	-0.045m	0.008m	-0.004m	-0.88
			Dist.	2104.800m	0.004m	0.000m	-0.18

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1243	CP1131	L 048	**Az.**	334°32'55.9947"	0°00'00.4635"	0°00'00.8797"	1.97
			ΔHt.	4.091m	0.011m	0.021m	1.68
			Dist.	2291.822m	0.004m	0.003m	0.70
B1079	CP1187	CP1185	**Az.**	103°23'23.6912"	0°00'00.3417"	0°00'00.4057"	1.96
			ΔHt.	1.230m	0.018m	0.014m	1.38
			Dist.	4793.295m	0.006m	0.005m	1.56
B2447	CP1068	CP5313	**Az.**	141°25'18.5195"	0°00'00.1609"	0°00'00.0938"	1.96
			ΔHt.	-1.411m	0.008m	0.001m	0.48
			Dist.	3336.034m	0.003m	0.000m	-0.37
B320	Q 529	CP1224	**Az.**	143°38'06.4013"	0°00'00.2201"	0°00'00.0584"	0.90
			ΔHt.	-1.067m	0.008m	0.004m	1.95
			Dist.	3868.310m	0.003m	0.001m	1.21
B943	CP1169	FLGPS 57	**Az.**	53°58'16.2588"	0°00'01.3819"	0°00'01.6884"	1.95
			ΔHt.	-0.411m	0.007m	-0.003m	-0.89
			Dist.	388.971m	0.002m	0.001m	0.70
B2140	CP1246	CP5128	**Az.**	311°16'31.2092"	0°00'00.7212"	-0°00'01.1578"	-1.32
			ΔHt.	0.582m	0.038m	-0.093m	-1.94
			Dist.	3030.914m	0.008m	0.000m	0.10
B614	CP1201	CP1204	**Az.**	281°07'52.5934"	0°00'00.1343"	-0°00'00.2234"	-1.80
			ΔHt.	-0.649m	0.014m	-0.023m	-1.94
			Dist.	8415.736m	0.006m	-0.001m	-0.50
B1792	CP1301-PA1	CP2005	**Az.**	315°26'08.9624"	0°00'03.9152"	0°00'02.0419"	1.94
			ΔHt.	-0.046m	0.009m	0.001m	0.43
			Dist.	150.041m	0.003m	0.000m	0.20
B1418	CP1188	CP1013	**Az.**	77°39'30.9823"	0°00'00.4949"	0°00'00.4772"	1.19
			ΔHt.	1.699m	0.020m	0.032m	1.93
			Dist.	3473.747m	0.009m	-0.011m	-1.69
B182	CP1150	CP1149	**Az.**	115°47'18.3184"	0°00'00.1730"	-0°00'00.1517"	-1.93
			ΔHt.	0.197m	0.008m	0.005m	1.84
			Dist.	3923.384m	0.003m	-0.001m	-0.84
B1382	CP1008	CP1011	**Az.**	124°50'50.6212"	0°00'00.2775"	0°00'00.3696"	1.92
			ΔHt.	-2.523m	0.014m	0.000m	0.03
			Dist.	3123.262m	0.005m	0.002m	0.47
B1073	CP1118	CP1185	**Az.**	137°04'21.7098"	0°00'00.1203"	0°00'00.1450"	1.28
			ΔHt.	-2.781m	0.013m	-0.023m	-1.92
			Dist.	7662.290m	0.005m	-0.006m	-1.39

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B592	CP1240	S 410 X	**Az.**	167°36'02.1704"	0°00'00.1341"	0°00'00.7280"	1.69
			ΔHt.	-0.983m	0.020m	-0.002m	-0.09
			Dist.	6651.157m	0.004m	0.012m	1.92
B376	CP1067	CP1068	**Az.**	318°02'41.6557"	0°00'00.4418"	0°00'00.1199"	0.32
			ΔHt.	1.042m	0.015m	-0.003m	-0.27
			Dist.	2401.703m	0.006m	0.013m	1.91
B976	CP1111	CP1230	**Az.**	134°26'58.1638"	0°00'00.1957"	0°00'00.1734"	1.90
			ΔHt.	-1.024m	0.012m	-0.005m	-1.07
			Dist.	5630.308m	0.004m	-0.001m	-0.62
B2407	CP3010	CP5340	**Az.**	89°58'51.0745"	0°00'00.1238"	-0°00'00.0492"	-0.35
			ΔHt.	-1.718m	0.021m	-0.012m	-0.49
			Dist.	13700.138m	0.006m	-0.010m	-1.90
B1527	CP1211	CP1258	**Az.**	99°09'58.5173"	0°00'00.1837"	-0°00'00.0807"	-0.91
			ΔHt.	-1.207m	0.011m	-0.009m	-1.90
			Dist.	4894.695m	0.005m	-0.003m	-1.26
B503	CP1071	CP1215	**Az.**	64°00'04.0756"	0°00'00.1192"	-0°00'00.5386"	-1.89
			ΔHt.	-2.892m	0.022m	0.091m	1.82
			Dist.	12168.278m	0.009m	0.007m	0.20
B1914	CP1214	CP3010	**Az.**	207°14'56.3957"	0°00'00.7933"	0°00'00.6874"	1.52
			ΔHt.	0.554m	0.021m	-0.017m	-1.12
			Dist.	1779.800m	0.007m	0.007m	1.89
B41	FDEM-PB1	CP1144	**Az.**	249°38'24.7832"	0°00'00.0781"	0°00'00.1363"	1.89
			ΔHt.	1.982m	0.011m	0.023m	1.85
			Dist.	5674.529m	0.003m	-0.002m	-0.84
B301	CP1223	AIRPORT	**Az.**	90°33'48.9206"	0°00'00.1448"	0°00'00.0674"	0.36
			ΔHt.	-1.373m	0.019m	0.025m	1.43
			Dist.	7344.734m	0.005m	-0.010m	-1.88
B1253	CP1130	L 048	**Az.**	203°03'58.3772"	0°00'01.4088"	-0°00'00.3157"	-0.20
			ΔHt.	5.571m	0.008m	0.006m	0.92
			Dist.	397.742m	0.003m	-0.008m	-1.88
B564	CP1058	S 410 X	**Az.**	325°30'24.7239"	0°00'00.5556"	-0°00'00.8190"	-1.88
			ΔHt.	0.529m	0.020m	-0.004m	-0.37
			Dist.	2927.131m	0.006m	0.001m	0.37
B781	CP1205	CP1202	**Az.**	84°44'10.6078"	0°00'00.0815"	-0°00'00.0477"	-1.11
			ΔHt.	-0.497m	0.012m	-0.013m	-1.87
			Dist.	10768.937m	0.005m	-0.003m	-0.83

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1379	CP1134	CP1135	**Az.**	163°18'57.8856"	0°00'00.2656"	0°00'00.2573"	1.87
			ΔHt.	0.137m	0.018m	0.003m	0.33
			Dist.	3220.056m	0.005m	0.001m	0.29
B254	CP1214	CP1213	**Az.**	173°55'16.7339"	0°00'00.1115"	-0°00'00.0324"	-0.34
			ΔHt.	-0.029m	0.013m	0.006m	0.56
			Dist.	8122.426m	0.004m	0.007m	1.87
B2386	CP5338	CP5340	**Az.**	285°46'38.6186"	0°00'00.1699"	0°00'00.0310"	0.20
			ΔHt.	0.849m	0.025m	-0.004m	-0.20
			Dist.	13718.285m	0.009m	-0.016m	-1.85
B1393	CP1018	R 543	**Az.**	62°04'22.1612"	0°00'00.0891"	0°00'00.1256"	1.85
			ΔHt.	-1.450m	0.018m	0.008m	0.62
			Dist.	11572.829m	0.006m	-0.002m	-0.44
B6	G 489	CP1139	**Az.**	202°33'13.9085"	0°00'00.4166"	0°00'00.5066"	1.84
			ΔHt.	-2.350m	0.012m	0.002m	0.41
			Dist.	1834.309m	0.003m	-0.003m	-1.50
B2370	CP5340	CP5316	**Az.**	147°39'40.5198"	0°00'00.0841"	0°00'00.2102"	1.84
			ΔHt.	0.695m	0.024m	0.004m	0.10
			Dist.	20408.405m	0.010m	-0.015m	-0.76
B1637	CP1048	CP1047	**Az.**	90°54'23.3614"	0°00'00.2514"	0°00'00.0319"	0.72
			ΔHt.	-1.004m	0.007m	-0.001m	-0.83
			Dist.	3180.277m	0.003m	0.001m	1.83
B530	CP1158	CP1157	**Az.**	103°11'21.1099"	0°00'00.7455"	-0°00'00.1247"	-0.39
			ΔHt.	0.465m	0.015m	-0.011m	-1.83
			Dist.	1656.734m	0.005m	0.000m	0.28
B281	CP1161	CP1160	**Az.**	110°08'44.2380"	0°00'00.2835"	0°00'00.0833"	0.33
			ΔHt.	0.313m	0.009m	0.006m	1.01
			Dist.	2511.624m	0.003m	-0.005m	-1.82
B927	CP1244	CP1227	**Az.**	130°37'15.3483"	0°00'00.1523"	-0°00'00.0283"	-0.28
			ΔHt.	-1.019m	0.011m	0.010m	1.40
			Dist.	5588.407m	0.005m	0.006m	1.82
B1271	CP1190	CP1020	**Az.**	70°20'53.4038"	0°00'00.0954"	-0°00'00.0165"	-0.20
			ΔHt.	2.425m	0.008m	-0.005m	-0.84
			Dist.	5941.767m	0.003m	0.005m	1.82
B218	CP1146	CP1209	**Az.**	178°29'36.7000"	0°00'00.0594"	-0°00'00.0835"	-1.10
			ΔHt.	-1.003m	0.008m	0.003m	0.28
			Dist.	11220.249m	0.004m	-0.011m	-1.82

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B336	CP1079	CP1076	**Az.**	164°19'59.8702"	0°00'00.1342"	-0°00'00.0278"	-0.27
			ΔHt.	0.641m	0.013m	0.001m	0.08
			Dist.	7192.118m	0.005m	-0.007m	-1.82
B1363	Star	CP1135	**Az.**	357°31'11.2501"	0°00'00.2510"	0°00'00.1732"	1.82
			ΔHt.	-4.863m	0.016m	0.001m	0.16
			Dist.	3295.289m	0.005m	0.001m	0.35
B211	CP1147	CP1209	**Az.**	172°57'26.3424"	0°00'00.0518"	-0°00'00.0667"	-0.54
			ΔHt.	-0.854m	0.008m	-0.040m	-1.81
			Dist.	11999.121m	0.003m	-0.009m	-1.12
B987	CP1230	CP1176	**Az.**	113°30'17.8582"	0°00'00.2007"	0°00'00.7269"	1.50
			ΔHt.	-1.920m	0.028m	0.141m	1.69
			Dist.	8362.849m	0.008m	0.033m	1.81
B1080	CP1115	CP1114	**Az.**	179°24'50.3742"	0°00'00.9682"	0°00'01.5001"	1.80
			ΔHt.	-1.218m	0.025m	0.001m	0.02
			Dist.	2121.030m	0.009m	0.005m	0.50
B1095	CP1187	CP1118	**Az.**	352°57'58.5115"	0°00'00.2637"	-0°00'00.1625"	-0.85
			ΔHt.	4.012m	0.018m	-0.014m	-1.12
			Dist.	4534.817m	0.008m	0.011m	1.80
B334	Y 530	CP1075	**Az.**	8°41'04.5931"	0°00'00.1006"	0°00'00.0004"	0.00
			ΔHt.	1.230m	0.019m	-0.012m	-0.47
			Dist.	13917.500m	0.006m	-0.013m	-1.80
B101	C 414	CP1211	**Az.**	222°15'17.0460"	0°00'00.0647"	0°00'00.0924"	1.38
			ΔHt.	-7.222m	0.007m	0.000m	0.02
			Dist.	8400.265m	0.003m	0.006m	1.80
B1557	Y 535	CP1062	**Az.**	91°36'50.6710"	0°00'00.1218"	-0°00'00.1674"	-1.80
			ΔHt.	-0.526m	0.011m	-0.001m	-0.16
			Dist.	6178.425m	0.004m	0.000m	0.11
B2126	CP1248	CP1032	**Az.**	52°30'39.9271"	0°00'00.1856"	0°00'00.3464"	1.80
			ΔHt.	-0.115m	0.022m	-0.057m	-1.64
			Dist.	7263.660m	0.007m	0.017m	1.58
B44	FDEM-PB1	CP1142	**Az.**	299°08'12.0737"	0°00'00.1740"	-0°00'00.1950"	-1.79
			ΔHt.	0.695m	0.005m	-0.001m	-0.29
			Dist.	2212.808m	0.002m	0.000m	0.22
B377	CP1067	CP1068	**Az.**	318°02'41.6557"	0°00'00.4418"	-0°00'00.3809"	-0.76
			ΔHt.	1.042m	0.015m	-0.001m	-0.04
			Dist.	2401.703m	0.006m	0.011m	1.78

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B611	CP1210	CP1067	**Az.**	267°54'56.3604"	0°00'00.0758"	0°00'00.0906"	1.77
			ΔHt.	0.758m	0.011m	0.004m	0.59
			Dist.	9738.208m	0.004m	-0.002m	-0.97
B392	CP1220	CP1073	**Az.**	211°20'51.9442"	0°00'00.1910"	0°00'00.2344"	1.77
			ΔHt.	1.473m	0.014m	0.013m	1.48
			Dist.	6215.810m	0.006m	-0.003m	-1.13
B588	CP1058	CP1059	**Az.**	89°41'46.9242"	0°00'00.1537"	-0°00'00.1076"	-1.32
			ΔHt.	-0.071m	0.021m	0.001m	0.05
			Dist.	9010.348m	0.009m	0.007m	1.77
B911	CP1244	CP1103	**Az.**	309°31'27.1091"	0°00'00.1399"	0°00'00.0864"	1.38
			ΔHt.	2.321m	0.014m	-0.004m	-0.75
			Dist.	7023.432m	0.006m	0.004m	1.77
B13	CP1138	CP1137	**Az.**	39°06'56.7996"	0°00'00.2010"	-0°00'00.1504"	-1.77
			ΔHt.	-5.764m	0.013m	0.008m	1.18
			Dist.	5515.876m	0.006m	-0.003m	-0.83
B896	CP1232	CP1180	**Az.**	97°51'19.5709"	0°00'00.2161"	0°00'00.4326"	1.71
			ΔHt.	-0.091m	0.025m	0.031m	0.94
			Dist.	6170.167m	0.009m	0.035m	1.76
B71	FDEM-PB1	CP1193	**Az.**	27°27'40.2829"	0°00'00.0866"	-0°00'00.0614"	-1.15
			ΔHt.	0.903m	0.011m	0.011m	1.76
			Dist.	11145.926m	0.005m	0.000m	-0.09
B1312	CP1001	CP1004	**Az.**	119°34'49.0656"	0°00'00.4459"	0°00'02.6184"	1.76
			ΔHt.	0.660m	0.025m	-0.103m	-1.40
			Dist.	3335.488m	0.009m	0.016m	0.86
B372	Y 530	CP1073	**Az.**	31°12'40.0880"	0°00'00.1234"	0°00'00.0261"	0.19
			ΔHt.	1.018m	0.017m	-0.012m	-0.73
			Dist.	10240.356m	0.007m	-0.018m	-1.75
B28	CP1247	G 489	**Az.**	313°40'27.3488"	0°00'00.0586"	-0°00'00.0299"	-0.35
			ΔHt.	3.498m	0.012m	-0.003m	-0.32
			Dist.	8239.267m	0.003m	-0.007m	-1.75
B1038	CP1179	CP1232	**Az.**	304°14'34.8888"	0°00'00.2737"	0°00'00.2990"	1.16
			ΔHt.	-0.006m	0.018m	-0.045m	-1.75
			Dist.	4329.548m	0.007m	0.019m	1.28
B1744	CP1023	CP1025	**Az.**	116°43'47.3137"	0°00'00.1344"	0°00'00.0359"	0.31
			ΔHt.	0.657m	0.018m	0.010m	0.86
			Dist.	8909.619m	0.006m	0.008m	1.75

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1686	CP1036	CP1042	**Az.**	156°50'14.1044"	0°00'00.0752"	0°00'00.0009"	0.01
			ΔHt.	-1.094m	0.008m	0.004m	0.60
			Dist.	9926.588m	0.003m	-0.005m	-1.74
B594	CP1243	CP1063	**Az.**	251°43'37.6723"	0°00'00.1051"	0°00'00.2867"	0.79
			ΔHt.	-0.930m	0.010m	0.005m	0.11
			Dist.	6835.813m	0.004m	0.016m	1.74
B593	CP1063	CP1243	**Az.**	71°41'53.7663"	0°00'00.1051"	-0°00'00.0751"	-0.44
			ΔHt.	0.930m	0.010m	0.012m	0.83
			Dist.	6835.813m	0.004m	0.012m	1.74
B1791	CP1302-PA1	CP2005	**Az.**	264°14'10.9615"	0°00'00.5530"	-0°00'00.9349"	-1.74
			ΔHt.	0.425m	0.010m	0.003m	0.26
			Dist.	1161.060m	0.004m	0.002m	0.62
B367	CP1218	CP1220	**Az.**	239°31'05.0604"	0°00'00.1716"	-0°00'00.1194"	-0.79
			ΔHt.	1.068m	0.024m	0.026m	1.73
			Dist.	9300.561m	0.009m	0.006m	0.84
B160	CP1154	CP1219	**Az.**	181°56'36.6840"	0°00'00.1136"	0°00'00.0723"	0.54
			ΔHt.	1.127m	0.010m	-0.003m	-0.27
			Dist.	7246.338m	0.003m	-0.006m	-1.73
B975	CP1227	CP1169	**Az.**	97°10'20.1808"	0°00'00.1376"	0°00'00.1045"	1.27
			ΔHt.	-1.868m	0.006m	0.004m	0.96
			Dist.	3497.805m	0.003m	0.003m	1.72
B1714	CP1137	CP1245	**Az.**	64°49'11.2858"	0°00'00.2351"	0°00'00.0479"	0.17
			ΔHt.	-2.288m	0.017m	0.030m	1.72
			Dist.	5634.017m	0.007m	-0.004m	-0.57
B1171	CP1122	CP1120	**Az.**	356°54'51.4208"	0°00'00.1951"	0°00'00.2356"	0.97
			ΔHt.	2.923m	0.015m	0.029m	1.72
			Dist.	5678.118m	0.006m	-0.003m	-0.42
B1958	CP5101	CP5103	**Az.**	10°50'18.0932"	0°00'01.3066"	0°00'00.4620"	0.82
			ΔHt.	0.234m	0.009m	0.001m	0.29
			Dist.	622.825m	0.003m	-0.002m	-1.71
B685	CP1202	FLGPS 69	**Az.**	152°22'36.7579"	0°00'00.0707"	-0°00'00.0186"	-0.38
			ΔHt.	2.199m	0.011m	-0.003m	-0.44
			Dist.	9534.222m	0.003m	-0.003m	-1.71
B273	CP1222	CP1158	**Az.**	4°49'05.6160"	0°00'00.1473"	0°00'00.1873"	1.67
			ΔHt.	-1.623m	0.016m	-0.014m	-1.21
			Dist.	7077.276m	0.006m	0.008m	1.69

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B137	CP1219	CP1218	**Az.**	174°44'28.0825"	0°00'00.1695"	0°00'00.1167"	1.69
			ΔHt.	0.142m	0.022m	0.015m	1.47
			Dist.	9138.001m	0.006m	-0.002m	-0.90
B539	CP1222	CP1157	**Az.**	18°18'05.0693"	0°00'00.1590"	0°00'00.2359"	1.65
			ΔHt.	-1.158m	0.014m	-0.025m	-1.17
			Dist.	7029.918m	0.005m	0.016m	1.69
B1208	CP1109	CP1111	**Az.**	95°09'14.2887"	0°00'00.3202"	0°00'00.0263"	0.17
			ΔHt.	-0.852m	0.015m	-0.004m	-0.57
			Dist.	3819.431m	0.006m	-0.005m	-1.69
B2387	CP1203	CP5333	**Az.**	144°28'55.0937"	0°00'00.2438"	-0°00'00.1259"	-1.17
			ΔHt.	0.305m	0.014m	0.002m	0.33
			Dist.	4736.833m	0.004m	0.003m	1.68
B1630	CP1238	CP1047	**Az.**	202°28'35.7458"	0°00'00.1396"	0°00'00.1823"	1.68
			ΔHt.	-1.136m	0.012m	0.006m	0.83
			Dist.	7877.828m	0.005m	-0.001m	-0.18
B2415	CP1068	CP5328	**Az.**	28°40'04.7309"	0°00'00.1227"	-0°00'00.4087"	-0.22
			ΔHt.	-1.765m	0.020m	0.042m	0.26
			Dist.	14989.640m	0.009m	-0.038m	-1.68
B34	FDEM-PB1	CP1141	**Az.**	329°40'51.6198"	0°00'00.1220"	-0°00'00.2220"	-1.68
			ΔHt.	-0.060m	0.005m	-0.002m	-0.41
			Dist.	3496.083m	0.002m	0.000m	-0.18
B1961	CP5105	CP5106	**Az.**	301°33'59.9257"	0°00'00.4144"	-0°00'00.3820"	-1.68
			ΔHt.	0.362m	0.010m	0.000m	0.07
			Dist.	1871.230m	0.004m	-0.003m	-1.36
B1330	C T2	CP1007	**Az.**	239°59'48.2530"	0°00'00.0699"	-0°00'00.2480"	-1.68
			ΔHt.	0.516m	0.025m	0.042m	1.49
			Dist.	17224.829m	0.006m	0.017m	1.17
B299	C 519	CP1088	**Az.**	119°26'35.4568"	0°00'00.0521"	-0°00'00.2073"	-1.68
			ΔHt.	-4.679m	0.019m	-0.006m	-0.21
			Dist.	16410.935m	0.005m	0.003m	0.29
B2209	CP1119	CP5229	**Az.**	211°41'57.2178"	0°00'01.4585"	-0°00'01.8515"	-1.53
			ΔHt.	-0.027m	0.018m	0.028m	1.67
			Dist.	710.639m	0.005m	0.006m	1.54
B260	CP1152	CP1151	**Az.**	115°48'02.5299"	0°00'00.3706"	-0°00'00.3726"	-1.67
			ΔHt.	0.080m	0.011m	-0.002m	-0.29
			Dist.	2652.256m	0.005m	0.005m	1.60

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1265	CP1123	CP1121	**Az.**	340°55'51.7261"	0°00'00.3100"	0°00'00.3292"	1.67
			ΔHt.	-4.929m	0.032m	0.008m	0.54
			Dist.	5554.704m	0.015m	-0.001m	-0.18
B846	CP1098	CP1226	**Az.**	38°15'24.1962"	0°00'00.2223"	0°00'00.1413"	1.38
			ΔHt.	-2.314m	0.010m	0.010m	1.67
			Dist.	4014.323m	0.004m	0.003m	1.37
B1981	CP1141	CP1247	**Az.**	77°00'26.0768"	0°00'00.0856"	-0°00'00.1578"	-1.01
			ΔHt.	-0.441m	0.007m	0.004m	0.30
			Dist.	5622.396m	0.003m	-0.008m	-1.66
B1901	CP1202	CP3005	**Az.**	232°03'11.7788"	0°00'00.2297"	-0°00'00.0299"	-0.21
			ΔHt.	0.738m	0.015m	-0.005m	-0.67
			Dist.	9370.703m	0.005m	0.005m	1.66
B683	CP1057	CP1056	**Az.**	95°44'17.1001"	0°00'00.0884"	-0°00'00.0262"	-0.54
			ΔHt.	0.119m	0.013m	0.011m	1.66
			Dist.	9872.701m	0.005m	0.000m	0.04
B1934	CP5103	CP5107	**Az.**	1°48'59.7920"	0°00'00.9500"	0°00'00.1341"	0.47
			ΔHt.	0.306m	0.008m	0.000m	-0.19
			Dist.	746.464m	0.003m	-0.001m	-1.66
B876	K 523	CP1180	**Az.**	12°33'59.1915"	0°00'00.6803"	0°00'00.2935"	0.50
			ΔHt.	-3.736m	0.019m	0.002m	0.14
			Dist.	1805.779m	0.004m	0.005m	1.65
B837	CP1161	CP1163	**Az.**	335°31'50.8099"	0°00'00.1586"	0°00'00.2314"	1.65
			ΔHt.	1.316m	0.012m	-0.004m	-0.37
			Dist.	5365.245m	0.004m	0.004m	1.01
B966	CP1173	CP1230	**Az.**	346°28'58.7945"	0°00'00.1326"	0°00'00.2613"	1.65
			ΔHt.	1.591m	0.013m	0.048m	0.57
			Dist.	7588.509m	0.005m	-0.016m	-0.56
B668	CP1250	CP1052	**Az.**	91°38'14.3390"	0°00'00.0588"	-0°00'00.0266"	-0.76
			ΔHt.	0.885m	0.011m	-0.009m	-1.64
			Dist.	14495.967m	0.004m	-0.001m	-0.67
B1552	CP1063	CP1060	**Az.**	118°41'39.5123"	0°00'00.1444"	-0°00'00.1037"	-0.70
			ΔHt.	-0.288m	0.012m	-0.010m	-0.69
			Dist.	5725.462m	0.004m	0.007m	1.63
B1523	CP1243	CP1064	**Az.**	272°03'52.9548"	0°00'00.0797"	0°00'00.0313"	0.29
			ΔHt.	-0.916m	0.008m	0.001m	0.07
			Dist.	7457.326m	0.004m	-0.009m	-1.63

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1831	CP1046	CP1045	**Az.**	90°13'51.9686"	0°00'00.2150"	0°00'00.0260"	0.35
			ΔHt.	1.072m	0.011m	0.001m	0.15
			Dist.	3874.144m	0.005m	0.003m	1.63
B2409	CP5340	CP5328	**Az.**	236°53'09.2772"	0°00'00.0774"	-0°00'00.1096"	-1.63
			ΔHt.	2.303m	0.021m	0.023m	1.25
			Dist.	20821.997m	0.007m	-0.007m	-1.32
B1200	CP1120	CP1003	**Az.**	355°26'23.6423"	0°00'00.5986"	-0°00'00.4054"	-1.63
			ΔHt.	-0.558m	0.014m	-0.006m	-1.13
			Dist.	1582.656m	0.005m	-0.001m	-0.43
B808	CP1173	CP1174	**Az.**	71°06'04.3495"	0°00'00.4795"	-0°00'00.1090"	-0.38
			ΔHt.	-0.626m	0.010m	-0.016m	-1.62
			Dist.	2196.099m	0.004m	0.000m	0.04
B2371	CP5338	CP5316	**Az.**	189°39'41.0201"	0°00'00.1461"	0°00'00.4894"	1.62
			ΔHt.	1.544m	0.027m	0.038m	0.73
			Dist.	13718.948m	0.011m	-0.012m	-0.73
B212	CP1147	CP1209	**Az.**	172°57'26.3424"	0°00'00.0518"	0°00'00.0587"	0.82
			ΔHt.	-0.854m	0.008m	-0.015m	-1.52
			Dist.	11999.121m	0.003m	-0.009m	-1.62
B2460	CP5307	CP1060	**Az.**	88°43'51.6332"	0°00'00.1910"	0°00'00.1138"	0.47
			ΔHt.	-0.048m	0.018m	0.020m	0.87
			Dist.	6495.835m	0.006m	-0.015m	-1.62
B578	CP1210	CP1063	**Az.**	205°02'22.5162"	0°00'00.0750"	0°00'00.2661"	1.62
			ΔHt.	-0.660m	0.009m	0.029m	1.08
			Dist.	9394.017m	0.003m	-0.002m	-0.23
B1638	D 537	CP1049	**Az.**	348°46'05.0938"	0°00'00.1026"	0°00'00.2034"	1.40
			ΔHt.	-0.103m	0.013m	0.009m	0.79
			Dist.	5703.694m	0.003m	0.006m	1.61
B2148	CP1248	CP1030	**Az.**	359°54'08.7170"	0°00'00.1398"	0°00'00.0139"	0.17
			ΔHt.	-0.155m	0.007m	-0.008m	-1.61
			Dist.	3965.572m	0.004m	-0.002m	-0.91
B1899	CP1198	CP3004	**Az.**	141°12'48.5771"	0°00'00.1983"	-0°00'00.0882"	-1.61
			ΔHt.	-0.917m	0.013m	0.004m	1.11
			Dist.	4607.113m	0.006m	0.001m	0.38
B1096	CP1114	CP1186	**Az.**	89°44'45.4628"	0°00'00.5222"	0°00'00.1201"	0.56
			ΔHt.	-0.858m	0.020m	-0.001m	-0.17
			Dist.	3244.833m	0.008m	-0.005m	-1.61

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2257	CP5223	CP5222	**Az.**	93°04'24.0735"	0°00'01.2158"	0°00'00.5673"	0.70
			ΔHt.	-0.832m	0.023m	0.024m	1.61
			Dist.	1327.997m	0.007m	0.002m	0.43
B678	CP1053	CP1202	**Az.**	275°53'08.6137"	0°00'00.0992"	0°00'00.1548"	1.60
			ΔHt.	-4.097m	0.014m	0.007m	0.43
			Dist.	8996.240m	0.005m	0.005m	0.73
B125	FDEM-PB1	CP1153	**Az.**	279°37'23.4174"	0°00'00.0258"	-0°00'00.0204"	-0.63
			ΔHt.	3.826m	0.009m	-0.017m	-1.60
			Dist.	26060.814m	0.004m	0.004m	0.73
B925	CP1161	CP1162	**Az.**	320°15'12.9261"	0°00'00.2557"	0°00'00.1951"	1.60
			ΔHt.	1.015m	0.015m	-0.004m	-0.49
			Dist.	3483.938m	0.005m	0.001m	0.45
B1064	CP1230	CP1172	**Az.**	180°32'59.7364"	0°00'00.1012"	0°00'00.0704"	0.86
			ΔHt.	-1.651m	0.010m	-0.008m	-1.30
			Dist.	8082.795m	0.004m	0.004m	1.59
B1847	D 537	CP1050	**Az.**	323°32'58.1298"	0°00'00.0988"	0°00'00.0195"	0.16
			ΔHt.	-0.510m	0.011m	0.012m	1.01
			Dist.	7202.337m	0.004m	-0.007m	-1.59
B1252	L 048	CP1130	**Az.**	23°03'55.8015"	0°00'01.4087"	0°00'01.6844"	1.58
			ΔHt.	-5.571m	0.008m	0.000m	0.01
			Dist.	397.742m	0.003m	-0.002m	-0.83
B545	Q 529	CP1088	**Az.**	209°27'49.2737"	0°00'00.1390"	0°00'00.0750"	0.79
			ΔHt.	-0.876m	0.012m	0.000m	0.06
			Dist.	7229.347m	0.004m	0.004m	1.58
B315	C 519	CP1091	**Az.**	89°12'46.4261"	0°00'00.0503"	-0°00'00.1774"	-1.58
			ΔHt.	-2.738m	0.018m	0.005m	0.19
			Dist.	15574.557m	0.005m	0.015m	1.21
B2465	CP5308	CP5309	**Az.**	88°57'15.4914"	0°00'00.2105"	-0°00'00.3469"	-1.57
			ΔHt.	-0.606m	0.014m	0.013m	0.75
			Dist.	5283.131m	0.005m	-0.008m	-1.18
B1114	CP1118	CP1119	**Az.**	80°04'57.5264"	0°00'00.2490"	0°00'00.1601"	0.36
			ΔHt.	0.394m	0.012m	0.019m	0.80
			Dist.	3493.360m	0.004m	-0.011m	-1.57
B401	CP1210	CP1067	**Az.**	267°54'56.3604"	0°00'00.0758"	0°00'00.0538"	0.24
			ΔHt.	0.758m	0.011m	0.045m	1.21
			Dist.	9738.208m	0.004m	0.027m	1.56

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2338	CP5178	CP5177	**Az.**	275°59'34.4421"	0°00'02.6119"	-0°00'01.4007"	-0.47
			ΔHt.	0.172m	0.013m	0.019m	1.56
			Dist.	330.504m	0.004m	0.001m	0.12
B1190	OKEEPORT RESET	CP1003	**Az.**	101°55'42.5413"	0°00'00.5622"	-0°00'00.0332"	-0.13
			ΔHt.	-1.190m	0.014m	-0.009m	-1.56
			Dist.	1785.811m	0.005m	-0.001m	-0.30
B1543	872 2625 1	CP1258	**Az.**	242°30'54.5197"	0°00'00.1485"	-0°00'00.2400"	-1.56
			ΔHt.	-2.664m	0.012m	0.013m	1.27
			Dist.	7695.992m	0.004m	-0.001m	-0.35
B687	CP1056	FDEM-S7	**Az.**	332°39'58.9696"	0°00'00.5544"	0°00'00.2186"	1.27
			ΔHt.	3.548m	0.010m	0.000m	-0.06
			Dist.	1355.169m	0.004m	-0.002m	-1.56
B1546	FDEM-BC1	Y 535	**Az.**	110°54'30.0577"	0°00'00.3826"	0°00'00.1642"	0.58
			ΔHt.	-0.612m	0.008m	0.007m	1.55
			Dist.	1329.844m	0.003m	-0.001m	-0.51
B162	CP1303-PA1	CP1302-PA1	**Az.**	274°12'37.9916"	0°00'00.3255"	-0°00'00.1521"	-0.84
			ΔHt.	0.267m	0.010m	-0.008m	-1.55
			Dist.	2411.292m	0.005m	0.002m	0.57
B1592	CP1038	MF 41	**Az.**	141°24'36.0314"	0°00'00.2562"	0°00'00.4667"	1.55
			ΔHt.	0.988m	0.010m	0.002m	0.15
			Dist.	4234.944m	0.004m	0.002m	0.41
B1061	CP1091a	CP1093	**Az.**	345°20'41.4154"	0°00'00.2179"	-0°00'00.3496"	-0.91
			ΔHt.	0.457m	0.020m	-0.032m	-1.13
			Dist.	7151.898m	0.007m	0.017m	1.54
B2123	B 548	CP5122	**Az.**	123°01'04.2172"	0°00'00.1754"	-0°00'00.1639"	-1.16
			ΔHt.	-1.025m	0.015m	0.007m	0.84
			Dist.	7147.014m	0.007m	-0.012m	-1.54
B1460	CP1211	CP1260	**Az.**	291°37'17.4320"	0°00'00.2865"	-0°00'00.1531"	-0.68
			ΔHt.	1.099m	0.018m	-0.004m	-0.31
			Dist.	4297.365m	0.006m	0.007m	1.54
B1822	MF 41	CP1039	**Az.**	308°46'12.6530"	0°00'00.3066"	-0°00'00.4984"	-1.53
			ΔHt.	-1.647m	0.010m	-0.005m	-0.43
			Dist.	3477.171m	0.004m	0.001m	0.28
B1964	CP5114B	CP5117	**Az.**	321°01'57.4950"	0°00'00.8801"	-0°00'00.4606"	-0.87
			ΔHt.	0.643m	0.013m	0.003m	0.34
			Dist.	985.930m	0.004m	-0.004m	-1.52

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1181	CP1001	CP1003	**Az.**	268°38'31.7023"	0°00'00.4241"	0°00'00.1716"	0.54
			ΔHt.	-1.109m	0.033m	0.040m	1.07
			Dist.	4630.199m	0.010m	-0.015m	-1.51
B2340	CP1189	CP5124	**Az.**	48°21'22.0105"	0°00'00.4484"	-0°00'00.0689"	-0.27
			ΔHt.	0.933m	0.010m	0.009m	1.51
			Dist.	2127.056m	0.004m	-0.002m	-1.15
B838	CP1167	CP1227	**Az.**	318°52'44.8069"	0°00'00.2184"	0°00'00.0647"	0.38
			ΔHt.	0.320m	0.008m	-0.001m	-0.15
			Dist.	4063.414m	0.003m	-0.004m	-1.51
B2353	CP5316	CP5339	**Az.**	340°54'23.0627"	0°00'00.1142"	0°00'00.3863"	1.51
			ΔHt.	-0.600m	0.025m	-0.085m	-0.78
			Dist.	14712.470m	0.010m	-0.017m	-0.59
B1586	CP1046	CP1238	**Az.**	4°16'20.1062"	0°00'00.1518"	-0°00'00.2520"	-1.51
			ΔHt.	1.091m	0.013m	-0.001m	-0.07
			Dist.	7201.160m	0.005m	-0.006m	-0.67
B865	CP1180	CP1182	**Az.**	58°04'31.4397"	0°00'00.2392"	0°00'00.9292"	1.51
			ΔHt.	-0.658m	0.013m	0.124m	1.38
			Dist.	4477.313m	0.004m	-0.035m	-1.26
B1975	CP5109	CP5117	**Az.**	147°03'28.2621"	0°00'00.6881"	-0°00'00.3247"	-1.11
			ΔHt.	-0.294m	0.008m	0.004m	1.05
			Dist.	838.237m	0.003m	-0.002m	-1.51
B1980	CP1198	CP5118	**Az.**	273°59'44.7134"	0°00'00.2383"	0°00'00.1233"	0.48
			ΔHt.	-1.596m	0.019m	-0.015m	-0.58
			Dist.	5396.956m	0.006m	0.007m	1.51
B1215	CP1130	CP1129	**Az.**	349°32'35.7673"	0°00'00.4630"	-0°00'00.1891"	-1.51
			ΔHt.	1.360m	0.015m	-0.001m	-0.27
			Dist.	2444.101m	0.004m	0.000m	0.08
B1268	CP1126	CP1011	**Az.**	28°22'12.4188"	0°00'00.2810"	-0°00'00.0136"	-0.05
			ΔHt.	2.862m	0.012m	0.009m	1.08
			Dist.	3751.097m	0.004m	-0.004m	-1.50
B1231	CP1188	CP1127	**Az.**	222°13'00.7029"	0°00'00.5118"	-0°00'00.6576"	-1.49
			ΔHt.	-1.767m	0.011m	-0.015m	-1.50
			Dist.	1822.524m	0.004m	-0.005m	-1.32
B787	Y 535	FDEM-BC1	**Az.**	290°54'49.9204"	0°00'00.3826"	-0°00'00.4908"	-1.48
			ΔHt.	0.612m	0.008m	0.008m	0.95
			Dist.	1329.844m	0.003m	-0.001m	-0.50

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B645	CP1054	CP1056	**Az.**	196°35'47.6037"	0°00'00.1618"	-0°00'00.1614"	-1.48
			ΔHt.	-1.636m	0.012m	0.005m	0.52
			Dist.	6195.465m	0.004m	0.001m	0.39
B2258	CP5228	CP5222	**Az.**	340°52'47.0909"	0°00'00.6340"	0°00'00.0254"	0.04
			ΔHt.	-0.069m	0.023m	0.030m	1.48
			Dist.	2234.062m	0.008m	-0.007m	-1.02
B1401	CP1015	CP1129	**Az.**	220°35'32.6709"	0°00'00.6174"	-0°00'00.4136"	-1.48
			ΔHt.	-2.443m	0.022m	0.007m	0.78
			Dist.	3576.872m	0.006m	-0.003m	-1.17
B2010	CP1161	CP5143	**Az.**	122°08'37.8446"	0°00'00.4254"	0°00'00.2780"	1.21
			ΔHt.	0.488m	0.009m	-0.005m	-0.77
			Dist.	1580.101m	0.003m	0.002m	1.48
B1854	CP1045	CP1044	**Az.**	94°16'36.3404"	0°00'00.2642"	-0°00'00.2267"	-1.47
			ΔHt.	-1.089m	0.007m	0.003m	0.76
			Dist.	2082.006m	0.003m	-0.003m	-1.23
B537	CP1089	Q 529	**Az.**	70°26'51.7592"	0°00'00.2120"	-0°00'00.2780"	-1.47
			ΔHt.	-0.482m	0.018m	0.017m	1.15
			Dist.	5437.270m	0.006m	0.001m	0.19
B961	CP1225	CP1226	**Az.**	296°49'55.6442"	0°00'00.1609"	-0°00'00.4629"	-1.47
			ΔHt.	-0.683m	0.015m	0.002m	0.10
			Dist.	7371.440m	0.006m	0.009m	0.51
B869	CP1163	CP1092	**Az.**	252°47'36.9694"	0°00'00.2062"	-0°00'00.2356"	-1.47
			ΔHt.	0.329m	0.017m	-0.005m	-0.38
			Dist.	5244.071m	0.006m	-0.001m	-0.26
B640	CP1055	FLGPS 69	**Az.**	203°34'20.2856"	0°00'00.3888"	0°00'00.0063"	0.05
			ΔHt.	-0.280m	0.011m	-0.001m	-0.37
			Dist.	2203.787m	0.003m	-0.001m	-1.47
B139	CP1150	CP1303-PA1	**Az.**	271°17'29.0535"	0°00'00.2723"	-0°00'00.4048"	-1.47
			ΔHt.	-1.236m	0.013m	-0.016m	-1.01
			Dist.	3309.863m	0.005m	-0.008m	-1.41
B991	CP1100	CP1101	**Az.**	345°11'07.1911"	0°00'00.4226"	-0°00'00.6850"	-1.14
			ΔHt.	0.277m	0.020m	0.035m	0.92
			Dist.	3392.588m	0.010m	-0.023m	-1.46
B2396	CP1068	CP5315	**Az.**	87°29'45.8885"	0°00'00.3766"	-0°00'00.1657"	-0.31
			ΔHt.	-2.346m	0.024m	-0.006m	-0.25
			Dist.	6695.318m	0.011m	-0.017m	-1.46

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B724	CP1207	CP1057	**Az.**	157°28'21.0809"	0°00'00.0916"	0°00'00.1166"	1.45
			ΔHt.	0.934m	0.012m	0.012m	1.19
			Dist.	9620.949m	0.004m	-0.004m	-1.20
B2379	CP5342	CP5338	**Az.**	238°12'29.7630"	0°00'00.2042"	-0°00'00.0504"	-0.25
			ΔHt.	-0.134m	0.027m	-0.048m	-1.38
			Dist.	22157.605m	0.009m	-0.019m	-1.45
B1670	CP1037	B 548	**Az.**	20°29'07.4100"	0°00'00.2046"	0°00'00.1798"	1.23
			ΔHt.	-0.604m	0.011m	-0.004m	-0.55
			Dist.	4327.640m	0.004m	0.003m	1.45
B1343	CP1188	CP1127	**Az.**	222°13'00.7029"	0°00'00.5118"	0°00'00.4118"	1.45
			ΔHt.	-1.767m	0.011m	0.001m	0.19
			Dist.	1822.524m	0.004m	-0.001m	-0.47
B993	CP1091a	CP1162	**Az.**	85°15'41.5222"	0°00'00.1142"	0°00'00.1181"	0.67
			ΔHt.	-1.777m	0.019m	0.013m	0.40
			Dist.	9420.210m	0.007m	-0.023m	-1.45
B1574	CP1029	FLGPS 67	**Az.**	61°52'44.7388"	0°00'00.0541"	0°00'00.0999"	1.31
			ΔHt.	-1.347m	0.013m	-0.014m	-1.45
			Dist.	12997.308m	0.003m	-0.002m	-0.61
B1631	CP1048	CP1049	**Az.**	280°56'55.9077"	0°00'00.1297"	-0°00'00.0233"	-0.17
			ΔHt.	2.087m	0.007m	0.002m	0.22
			Dist.	3296.766m	0.003m	0.003m	1.45
B2181	CP1184	CP5173	**Az.**	203°52'49.1038"	0°00'03.3776"	-0°00'00.6094"	-0.23
			ΔHt.	-0.665m	0.019m	0.024m	1.45
			Dist.	346.422m	0.007m	-0.001m	-0.13
B666	CP1207	CP1057	**Az.**	157°28'21.0809"	0°00'00.0916"	0°00'00.1156"	1.44
			ΔHt.	0.934m	0.012m	0.012m	1.18
			Dist.	9620.949m	0.004m	-0.004m	-1.20
B1456	CP1015	CP1014	**Az.**	303°12'24.4049"	0°00'00.9816"	-0°00'00.6995"	-1.08
			ΔHt.	0.494m	0.026m	-0.037m	-1.44
			Dist.	1315.369m	0.012m	0.017m	1.27
B630	CP1053	CP1055	**Az.**	213°32'44.4890"	0°00'00.1775"	0°00'00.1608"	1.10
			ΔHt.	-1.617m	0.016m	-0.001m	-0.07
			Dist.	6609.194m	0.004m	-0.004m	-1.44
B1457	CP1189	CP1018	**Az.**	46°29'45.6023"	0°00'00.2693"	0°00'00.1954"	1.43
			ΔHt.	1.503m	0.015m	0.002m	0.28
			Dist.	3622.591m	0.006m	0.001m	0.25

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2173	CP5167	CP5170	**Az.**	29°50'28.5675"	0°00'00.6363"	0°00'00.1498"	0.54
			ΔHt.	-1.213m	0.009m	-0.006m	-1.43
			Dist.	1071.572m	0.003m	-0.001m	-0.55
B1956	CP1200	CP5102	**Az.**	315°19'44.4669"	0°00'00.3161"	-0°00'00.1957"	-1.43
			ΔHt.	-0.884m	0.012m	0.000m	0.05
			Dist.	2240.262m	0.004m	0.000m	0.03
B2408	CP5340	CP5317	**Az.**	190°20'14.0458"	0°00'00.0610"	-0°00'00.0672"	-1.43
			ΔHt.	0.544m	0.025m	0.012m	0.55
			Dist.	22958.167m	0.010m	0.001m	0.17
B491	CP1071	Y 530	**Az.**	244°48'08.8625"	0°00'00.1947"	-0°00'00.2244"	-0.78
			ΔHt.	-0.462m	0.021m	0.014m	0.37
			Dist.	7366.237m	0.009m	0.020m	1.42
B897	CP1232	CP1179	**Az.**	124°13'35.6465"	0°00'00.2737"	-0°00'00.2202"	-0.71
			ΔHt.	0.006m	0.018m	-0.014m	-1.42
			Dist.	4329.548m	0.007m	-0.001m	-0.25
B1256	CP1124	CP1122	**Az.**	273°17'03.2383"	0°00'00.2053"	0°00'00.2014"	0.76
			ΔHt.	-2.310m	0.023m	0.026m	1.42
			Dist.	6685.987m	0.006m	0.007m	0.86
B2425	CP5318	CP5326	**Az.**	103°20'34.6999"	0°00'01.1664"	-0°00'00.8682"	-0.87
			ΔHt.	-1.262m	0.039m	-0.031m	-0.96
			Dist.	3438.642m	0.018m	0.015m	1.42
B2129	CP1248	CP1029	**Az.**	320°35'20.0357"	0°00'00.1003"	0°00'00.0308"	0.17
			ΔHt.	0.726m	0.006m	-0.014m	-1.30
			Dist.	5236.553m	0.003m	-0.008m	-1.42
B290	CP1083	CP1242	**Az.**	54°56'48.4106"	0°00'00.1878"	-0°00'00.3846"	-1.41
			ΔHt.	-0.186m	0.015m	0.013m	0.73
			Dist.	5591.967m	0.007m	-0.001m	-0.12
B1098	CP1185	CP1119	**Az.**	344°03'26.4882"	0°00'00.1424"	0°00'00.0952"	0.62
			ΔHt.	3.176m	0.014m	0.020m	1.41
			Dist.	6461.393m	0.005m	-0.006m	-1.17
B31	CP1247	LICAN	**Az.**	283°31'53.1522"	0°00'00.0664"	0°00'00.0423"	0.68
			ΔHt.	7.346m	0.008m	0.004m	0.68
			Dist.	6779.064m	0.003m	0.003m	1.41
B351	CP1217	CP1215	**Az.**	17°37'37.5762"	0°00'00.2858"	0°00'00.1039"	0.14
			ΔHt.	-0.896m	0.025m	0.044m	0.61
			Dist.	7773.249m	0.008m	0.019m	1.41

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2124	CP1038	CP5122	**Az.**	54°28'31.3468"	0°00'00.1616"	0°00'00.0364"	0.12
			ΔHt.	-1.134m	0.015m	0.019m	1.41
			Dist.	8681.466m	0.005m	0.003m	0.57
B1467	CP1209	CP1255	**Az.**	269°31'15.5627"	0°00'00.1288"	0°00'00.6478"	1.41
			ΔHt.	-0.808m	0.014m	-0.008m	-0.37
			Dist.	7275.825m	0.004m	0.016m	1.08
B768	FDEM-PS5	CP1050	**Az.**	136°08'28.4137"	0°00'00.5113"	-0°00'00.1232"	-0.82
			ΔHt.	-0.423m	0.005m	0.000m	-0.31
			Dist.	789.462m	0.002m	-0.001m	-1.41
B1214	CP1127	CP1126	**Az.**	313°16'55.6559"	0°00'00.3754"	-0°00'00.0656"	-0.24
			ΔHt.	-0.078m	0.015m	0.001m	0.07
			Dist.	2682.519m	0.006m	0.004m	1.40
B1357	CP1004	CP1001	**Az.**	299°35'37.3570"	0°00'00.4459"	-0°00'00.2782"	-0.64
			ΔHt.	-0.660m	0.025m	-0.038m	-0.61
			Dist.	3335.488m	0.009m	0.032m	1.40
B864	CP1178	CP1179	**Az.**	42°37'33.5680"	0°00'00.5948"	0°00'01.5406"	1.40
			ΔHt.	0.182m	0.022m	-0.002m	-0.14
			Dist.	2735.768m	0.006m	-0.009m	-0.81
B2024	CP1161	CP5141	**Az.**	196°05'07.7512"	0°00'00.4830"	-0°00'00.0221"	-0.11
			ΔHt.	-0.179m	0.011m	0.002m	0.43
			Dist.	1356.659m	0.004m	0.002m	1.40
B1213	S 191 W	CP1125	**Az.**	114°06'17.8300"	0°00'00.2380"	0°00'00.1257"	1.40
			ΔHt.	-6.392m	0.010m	-0.001m	-0.20
			Dist.	3186.599m	0.004m	0.000m	-0.14
B999	FISH	CP1096	**Az.**	350°44'25.1217"	0°00'00.4420"	-0°00'00.2226"	-0.76
			ΔHt.	1.965m	0.009m	0.001m	0.17
			Dist.	1302.894m	0.004m	-0.003m	-1.40
B1101	C 358	CP1113	**Az.**	162°26'09.5228"	0°00'00.1324"	0°00'00.1699"	1.40
			ΔHt.	-1.565m	0.016m	0.004m	0.23
			Dist.	8354.215m	0.005m	-0.003m	-0.71
B2428	CP5322	CP5321	**Az.**	141°06'06.3505"	0°00'00.3477"	0°00'00.1904"	1.39
			ΔHt.	-0.513m	0.012m	0.003m	0.68
			Dist.	3177.314m	0.004m	0.000m	-0.04
B528	CP1090	Q 529	**Az.**	107°07'05.1851"	0°00'00.2482"	-0°00'00.1461"	-1.39
			ΔHt.	-1.347m	0.014m	0.000m	-0.05
			Dist.	3278.177m	0.005m	0.001m	0.25

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1917	CP1234	CP3001	**Az.**	62°42'09.5058"	0°00'00.5196"	-0°00'00.1832"	-1.32
			ΔHt.	-2.378m	0.018m	-0.006m	-1.39
			Dist.	2971.756m	0.006m	0.000m	-0.21
B390	CP1073	CP1215	**Az.**	91°19'25.5003"	0°00'00.1275"	-0°00'00.1104"	-0.42
			ΔHt.	-3.448m	0.021m	0.043m	1.39
			Dist.	12294.458m	0.008m	-0.005m	-0.39
B607	CP1066	CP1067	**Az.**	339°30'33.1457"	0°00'00.2912"	-0°00'00.0326"	-0.31
			ΔHt.	-1.714m	0.010m	0.001m	0.26
			Dist.	2689.835m	0.003m	0.001m	1.39
B2154	CP5158	CP5157	**Az.**	278°08'54.7259"	0°00'00.7548"	-0°00'00.5038"	-1.39
			ΔHt.	0.472m	0.009m	0.000m	0.12
			Dist.	983.291m	0.005m	-0.001m	-0.35
B140	CP1211	CP1150	**Az.**	355°11'57.9786"	0°00'00.0988"	0°00'00.1176"	1.39
			ΔHt.	0.202m	0.009m	0.003m	0.39
			Dist.	8187.778m	0.003m	-0.001m	-0.22
B1711	CP1194	CP1239	**Az.**	105°17'07.9549"	0°00'00.0906"	0°00'00.0736"	1.39
			ΔHt.	1.436m	0.010m	0.006m	0.99
			Dist.	7569.835m	0.004m	0.001m	0.29
B311	CP1090	CP1091	**Az.**	40°28'56.4205"	0°00'00.8673"	-0°00'00.0860"	-0.11
			ΔHt.	-0.283m	0.015m	0.012m	1.38
			Dist.	1340.060m	0.006m	-0.001m	-0.15
B1016	CP1176	CP1231	**Az.**	347°03'57.7590"	0°00'00.2099"	0°00'00.0157"	0.11
			ΔHt.	3.994m	0.019m	0.016m	1.38
			Dist.	5657.488m	0.007m	-0.003m	-0.57
B1297	CP1128	CP1127	**Az.**	328°46'23.8824"	0°00'00.9885"	-0°00'01.3561"	-1.38
			ΔHt.	-0.077m	0.026m	-0.029m	-1.15
			Dist.	1819.225m	0.010m	0.010m	0.88
B1635	CP1037	CP1038	**Az.**	174°49'28.0364"	0°00'00.1479"	0°00'00.0431"	0.58
			ΔHt.	-0.495m	0.008m	0.005m	1.38
			Dist.	4904.360m	0.003m	0.000m	0.26
B1287	CP1017	CP1016	**Az.**	286°30'53.8633"	0°00'00.5088"	0°00'00.2590"	0.40
			ΔHt.	-0.300m	0.012m	-0.005m	-0.21
			Dist.	1884.637m	0.005m	-0.009m	-1.38
B2116	CP1045	CP3000	**Az.**	337°04'50.5770"	0°00'00.1137"	-0°00'00.0330"	-0.27
			ΔHt.	-0.817m	0.011m	-0.017m	-1.38
			Dist.	6530.203m	0.004m	0.003m	0.53

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1604	CP1029	CP1030	**Az.**	91°22'13.7664"	0°00'00.2378"	-0°00'00.3632"	-0.98
			ΔHt.	-0.881m	0.007m	-0.011m	-0.90
			Dist.	3318.800m	0.003m	0.006m	1.38
B1932	872 2625 1	CP5101	**Az.**	87°42'06.2505"	0°00'00.2901"	0°00'00.3391"	1.37
			ΔHt.	-3.079m	0.014m	0.002m	0.19
			Dist.	2808.612m	0.005m	0.001m	0.13
B2052	CP1172	CP5152	**Az.**	239°20'58.2733"	0°00'01.9363"	0°00'01.1698"	1.37
			ΔHt.	-0.072m	0.007m	0.003m	1.18
			Dist.	265.968m	0.002m	-0.001m	-0.64
B1524	CP1213	CP1215	**Az.**	219°43'26.6634"	0°00'00.1137"	-0°00'00.1102"	-1.37
			ΔHt.	0.495m	0.014m	-0.009m	-0.83
			Dist.	8494.731m	0.005m	-0.002m	-0.58
B791	FISH	CP1097	**Az.**	28°10'12.0921"	0°00'00.4363"	0°00'00.3482"	1.23
			ΔHt.	1.241m	0.009m	0.000m	0.01
			Dist.	1449.654m	0.003m	-0.003m	-1.37
B832	CP1178	CP1232	**Az.**	338°47'11.4966"	0°00'00.2916"	-0°00'00.1439"	-0.60
			ΔHt.	0.176m	0.020m	-0.002m	-0.11
			Dist.	4772.033m	0.008m	-0.010m	-1.37
B1347	EDN 6 25	CP1020	**Az.**	292°29'11.7495"	0°00'00.0547"	-0°00'00.0244"	-0.34
			ΔHt.	-0.462m	0.009m	0.013m	1.13
			Dist.	10781.636m	0.003m	0.005m	1.37
B1590	FLGPS 67	CP1034	**Az.**	149°13'52.6940"	0°00'00.1946"	-0°00'00.1892"	-1.37
			ΔHt.	0.107m	0.023m	-0.006m	-0.39
			Dist.	7052.283m	0.008m	0.001m	0.21
B613	CP1201	CP1250	**Az.**	161°13'45.5231"	0°00'00.2432"	0°00'00.0525"	0.32
			ΔHt.	-0.140m	0.013m	0.009m	1.37
			Dist.	5067.465m	0.005m	-0.001m	-0.55
B811	CP1181	CP1182	**Az.**	29°02'38.2120"	0°00'00.5665"	0°00'01.1579"	1.36
			ΔHt.	0.277m	0.014m	0.007m	0.19
			Dist.	2140.698m	0.004m	-0.006m	-0.58
B2435	CP5306	CP5313	**Az.**	329°25'45.7230"	0°00'00.0983"	0°00'00.0981"	0.94
			ΔHt.	0.615m	0.012m	-0.017m	-1.36
			Dist.	7598.431m	0.004m	0.003m	0.70
B1170	CP1107	CP1104	**Az.**	247°59'17.2850"	0°00'00.1278"	0°00'00.0127"	0.31
			ΔHt.	0.710m	0.008m	0.002m	0.77
			Dist.	4887.829m	0.004m	0.002m	1.36

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B9	CP1143	CP1144	**Az.**	218°12'29.2448"	0°00'00.1513"	0°00'00.0526"	0.96
			ΔHt.	1.897m	0.010m	0.006m	1.27
			Dist.	2852.487m	0.002m	0.001m	1.36
B21	CP1247	CP1139	**Az.**	300°56'59.9960"	0°00'00.0972"	-0°00'00.1549"	-1.36
			ΔHt.	1.149m	0.012m	0.007m	0.54
			Dist.	7769.938m	0.004m	0.006m	1.13
B1137	CP1116	CP1186	**Az.**	175°35'11.7039"	0°00'00.3325"	0°00'00.0205"	0.13
			ΔHt.	-1.294m	0.021m	-0.004m	-0.40
			Dist.	5123.827m	0.008m	0.005m	1.36
B2075	CP1172	CP1173	**Az.**	69°10'47.3124"	0°00'00.4641"	0°00'01.8050"	1.35
			ΔHt.	0.060m	0.010m	-0.016m	-0.76
			Dist.	1981.717m	0.004m	0.002m	0.25
B1811	K 413	CP1048	**Az.**	114°55'19.3415"	0°00'00.1550"	0°00'01.0141"	1.35
			ΔHt.	0.792m	0.012m	0.026m	0.88
			Dist.	3554.106m	0.003m	0.003m	0.22
B1645	CP1239	CP1235	**Az.**	239°35'19.3563"	0°00'00.1179"	-0°00'00.0090"	-0.13
			ΔHt.	-0.747m	0.014m	-0.004m	-0.39
			Dist.	8668.621m	0.005m	0.004m	1.35
B1535	872 2625 1	CP1259	**Az.**	208°48'22.0255"	0°00'00.2775"	-0°00'00.1461"	-1.10
			ΔHt.	-2.241m	0.012m	0.010m	1.35
			Dist.	4075.749m	0.004m	0.001m	0.60
B1793	CP1303-PA1	CP2009	**Az.**	180°10'12.3665"	0°00'04.5798"	-0°00'00.4001"	-0.23
			ΔHt.	0.187m	0.009m	0.004m	1.35
			Dist.	178.837m	0.004m	0.000m	-0.32
B1848	CP1234	CP1235	**Az.**	130°08'29.3737"	0°00'00.1151"	-0°00'00.0028"	-0.05
			ΔHt.	-0.757m	0.015m	-0.001m	-0.10
			Dist.	9203.691m	0.005m	0.004m	1.35
B1489	CP1211	CP1255	**Az.**	172°09'25.4817"	0°00'00.1420"	0°00'00.1373"	0.96
			ΔHt.	-1.087m	0.013m	-0.002m	-0.22
			Dist.	6521.602m	0.005m	-0.006m	-1.35
B1389	C T2	CP1004	**Az.**	254°15'54.1978"	0°00'00.1106"	0°00'00.1786"	1.35
			ΔHt.	1.974m	0.030m	-0.011m	-0.38
			Dist.	18450.468m	0.009m	0.003m	0.24
B2060	FLGPS 57	CP5147	**Az.**	51°33'43.8948"	0°00'00.9159"	0°00'00.7310"	1.34
			ΔHt.	0.414m	0.008m	-0.003m	-0.47
			Dist.	847.337m	0.003m	0.000m	0.15

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2119	CP1039	CP5122	**Az.**	49°06'52.7090"	0°00'00.1472"	-0°00'00.0654"	-0.59
			ΔHt.	-0.475m	0.016m	-0.029m	-1.34
			Dist.	9438.201m	0.006m	-0.005m	-0.79
B2128	CP1029	CP5127	**Az.**	91°51'27.4152"	0°00'00.5227"	-0°00'00.0759"	-0.24
			ΔHt.	0.054m	0.008m	0.006m	1.34
			Dist.	1708.467m	0.003m	0.000m	0.14
B1147	CP1233	CP1182	**Az.**	113°19'06.7620"	0°00'00.2129"	0°00'00.9645"	1.34
			ΔHt.	-2.095m	0.023m	0.016m	0.29
			Dist.	6918.369m	0.008m	-0.003m	-0.20
B823	K 523	CP1181	**Az.**	54°23'44.0879"	0°00'00.2897"	-0°00'00.0375"	-0.20
			ΔHt.	-4.672m	0.019m	-0.005m	-0.43
			Dist.	3879.333m	0.005m	0.005m	1.34
B310	CP1085	CP1087	**Az.**	359°42'51.8725"	0°00'00.4370"	0°00'00.1224"	0.58
			ΔHt.	0.199m	0.011m	0.002m	0.52
			Dist.	2532.016m	0.005m	0.003m	1.34
B931	CP1099	CP1100	**Az.**	20°51'22.4448"	0°00'00.3721"	0°00'00.2045"	1.33
			ΔHt.	0.584m	0.015m	0.008m	1.16
			Dist.	2638.701m	0.006m	-0.002m	-0.77
B284	Q 519	CP1083	**Az.**	84°05'38.0489"	0°00'00.0367"	-0°00'00.0793"	-1.33
			ΔHt.	-1.385m	0.011m	-0.013m	-0.91
			Dist.	22209.464m	0.005m	0.007m	0.91
B1671	CP1037	CP1040	**Az.**	190°17'05.3132"	0°00'00.1345"	-0°00'00.2653"	-1.33
			ΔHt.	-0.684m	0.009m	-0.002m	-0.15
			Dist.	6103.830m	0.004m	-0.006m	-0.93
B2286	CP5228	CP5227	**Az.**	171°21'32.2173"	0°00'00.7808"	0°00'00.1226"	0.34
			ΔHt.	-0.136m	0.015m	-0.009m	-1.33
			Dist.	857.763m	0.006m	-0.002m	-0.86
B567	CP1066	CP1065	**Az.**	103°47'45.1996"	0°00'00.2266"	0°00'00.0346"	0.36
			ΔHt.	-2.543m	0.010m	0.001m	0.21
			Dist.	3300.693m	0.003m	0.002m	1.33
B252	CP1301-PA1	CP1214	**Az.**	177°32'02.2747"	0°00'00.1888"	-0°00'00.0903"	-1.11
			ΔHt.	0.450m	0.012m	0.007m	1.28
			Dist.	4993.109m	0.004m	-0.002m	-1.33
B840	CP1111	CP1228	**Az.**	235°40'23.2473"	0°00'00.1091"	-0°00'00.0053"	-0.14
			ΔHt.	1.644m	0.014m	-0.004m	-0.83
			Dist.	9946.170m	0.006m	0.003m	1.33

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B422	CP1073	CP1072	**Az.**	170°29'11.4313"	0°00'00.5458"	0°00'00.0561"	0.18
			ΔHt.	-0.805m	0.021m	0.013m	1.25
			Dist.	4264.278m	0.010m	-0.008m	-1.33
B2332	CP5180	CP5178	**Az.**	166°48'06.3184"	0°00'03.8174"	0°00'00.4334"	0.21
			ΔHt.	0.185m	0.013m	0.011m	1.33
			Dist.	191.913m	0.004m	0.002m	0.75
B779	CP1051	CP1050	**Az.**	40°58'42.1117"	0°00'00.0599"	0°00'00.0195"	0.49
			ΔHt.	2.032m	0.010m	-0.008m	-1.32
			Dist.	12561.600m	0.003m	0.000m	0.09
B245	CP1219	CP1301-PA1	**Az.**	88°19'01.7746"	0°00'00.1280"	-0°00'00.1360"	-1.26
			ΔHt.	-1.682m	0.012m	0.010m	0.96
			Dist.	6223.399m	0.004m	-0.005m	-1.32
B1703	C 547	CP1025	**Az.**	222°10'47.1309"	0°00'00.1149"	0°00'00.1117"	1.31
			ΔHt.	1.039m	0.019m	-0.007m	-0.77
			Dist.	10094.671m	0.005m	0.001m	0.21
B2462	CP5308	CP1060	**Az.**	88°33'16.2505"	0°00'00.2169"	-0°00'00.2941"	-1.31
			ΔHt.	-0.601m	0.015m	0.018m	1.03
			Dist.	5255.873m	0.005m	-0.005m	-0.80
B1183	C 358	CP1115	**Az.**	115°48'14.0680"	0°00'00.2014"	0°00'00.0883"	1.14
			ΔHt.	-0.341m	0.019m	0.002m	0.28
			Dist.	5459.785m	0.008m	-0.004m	-1.30
B1403	CP1131	CP1189	**Az.**	56°59'37.9336"	0°00'00.1665"	0°00'00.1303"	0.64
			ΔHt.	1.551m	0.010m	-0.001m	-0.13
			Dist.	4755.522m	0.005m	-0.009m	-1.30
B2151	CP1181	CP5157	**Az.**	344°47'53.1181"	0°00'00.6300"	-0°00'00.0312"	-0.07
			ΔHt.	0.426m	0.010m	-0.004m	-0.57
			Dist.	1084.405m	0.003m	0.003m	1.30
B1755	Star	CP1136	**Az.**	181°57'04.0988"	0°00'00.4403"	-0°00'00.1925"	-1.30
			ΔHt.	-5.123m	0.012m	0.001m	0.35
			Dist.	1587.544m	0.005m	0.002m	1.01
B1971	CP5101	CP5105	**Az.**	74°27'26.0902"	0°00'00.6307"	0°00'00.5690"	1.30
			ΔHt.	1.030m	0.011m	0.003m	0.37
			Dist.	1431.842m	0.004m	0.000m	-0.14
B565	CP1060	CP1063	**Az.**	298°42'59.8273"	0°00'00.1444"	0°00'00.0222"	0.16
			ΔHt.	0.288m	0.012m	0.000m	0.02
			Dist.	5725.462m	0.004m	0.007m	1.29

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B1356	CP1001	CP1002	**Az.**	182°20'42.9908"	0°00'01.2531"	0°00'01.0960"	0.83
			ΔHt.	-0.393m	0.050m	-0.088m	-1.12
			Dist.	1518.068m	0.022m	0.041m	1.29
B2399	CP5328	CP5315	**Az.**	182°16'05.3092"	0°00'00.1668"	-0°00'00.1167"	-1.29
			ΔHt.	-0.582m	0.023m	-0.005m	-0.39
			Dist.	12869.418m	0.011m	-0.002m	-0.37
B1894	CP1205	CP3005	**Az.**	145°04'09.3804"	0°00'00.1800"	-0°00'00.1750"	-1.29
			ΔHt.	0.241m	0.015m	0.008m	0.60
			Dist.	5831.043m	0.010m	-0.004m	-0.44
B1584	CP1042	CP1041	**Az.**	91°40'42.4446"	0°00'00.5187"	0°00'00.0706"	0.32
			ΔHt.	-0.200m	0.008m	-0.002m	-0.52
			Dist.	1483.629m	0.004m	0.002m	1.29
B231	CP1204	872 2625 1	**Az.**	347°28'03.6710"	0°00'00.0731"	-0°00'00.0898"	-1.29
			ΔHt.	2.633m	0.010m	-0.001m	-0.14
			Dist.	9839.111m	0.003m	-0.003m	-0.65
B1719	CP1245	CP1136	**Az.**	327°04'27.2331"	0°00'00.1862"	-0°00'00.0928"	-0.61
			ΔHt.	1.717m	0.014m	0.002m	0.25
			Dist.	5812.839m	0.005m	0.004m	1.29
B1948	CP5114A	CP5117	**Az.**	358°32'56.8612"	0°00'00.9724"	-0°00'02.9869"	-1.28
			ΔHt.	-0.595m	0.013m	0.032m	0.95
			Dist.	812.743m	0.005m	-0.011m	-1.05
B2327	CP1130	CP5124	**Az.**	76°14'01.0122"	0°00'00.1443"	-0°00'00.0113"	-0.13
			ΔHt.	3.964m	0.010m	-0.010m	-1.28
			Dist.	6595.503m	0.004m	0.003m	1.06
B2038	FLGPS 57	CP5148	**Az.**	66°20'01.7604"	0°00'00.4414"	0°00'00.5104"	1.28
			ΔHt.	-0.093m	0.008m	-0.003m	-0.47
			Dist.	1607.457m	0.003m	0.002m	0.90
B415	CP1072	CP1215	**Az.**	71°18'14.0975"	0°00'00.1563"	-0°00'00.1265"	-0.46
			ΔHt.	-2.643m	0.024m	0.045m	1.28
			Dist.	12232.053m	0.012m	0.002m	0.07
B654	CP1057	FDEM-S7	**Az.**	88°39'11.3799"	0°00'00.0996"	-0°00'00.1186"	-1.28
			ΔHt.	3.667m	0.014m	-0.002m	-0.14
			Dist.	9202.604m	0.005m	0.000m	0.00
B1903	CP1216	CP3008	**Az.**	105°33'20.0495"	0°00'00.1991"	0°00'00.0059"	0.05
			ΔHt.	2.612m	0.022m	0.012m	0.98
			Dist.	8143.803m	0.008m	-0.005m	-1.28

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B677	CP1250	CP1237	**Az.**	271°10'50.5409"	0°00'00.0730"	-0°00'00.0611"	-0.85
			ΔHt.	0.107m	0.008m	0.009m	1.28
			Dist.	8999.290m	0.004m	-0.002m	-0.46
B1991	CP5111	CP5119	**Az.**	351°29'19.6604"	0°00'00.2941"	-0°00'00.1825"	-1.27
			ΔHt.	-0.928m	0.012m	-0.004m	-0.66
			Dist.	2845.046m	0.005m	0.001m	0.24
B1660	CP1236	CP1196	**Az.**	18°51'43.8393"	0°00'00.1940"	0°00'00.1189"	1.27
			ΔHt.	0.222m	0.016m	-0.004m	-0.52
			Dist.	6293.617m	0.006m	0.004m	1.21
B788	FDEM-BC1	FDEM-BC2	**Az.**	92°09'39.6739"	0°00'00.5545"	-0°00'00.3488"	-1.27
			ΔHt.	-0.582m	0.013m	-0.007m	-0.48
			Dist.	1079.257m	0.004m	0.000m	0.00
B276	C 519	CP1089	**Az.**	105°46'30.1871"	0°00'00.0793"	-0°00'00.2267"	-1.26
			ΔHt.	-3.320m	0.022m	0.001m	0.04
			Dist.	13214.160m	0.007m	0.007m	0.51
B536	CP1242	CP1086	**Az.**	269°29'51.4253"	0°00'00.2508"	-0°00'00.3401"	-1.26
			ΔHt.	0.019m	0.018m	-0.009m	-0.52
			Dist.	6369.262m	0.008m	0.002m	0.20
B1487	CP1210	CP1251	**Az.**	199°56'36.2844"	0°00'00.1169"	-0°00'00.0660"	-1.26
			ΔHt.	1.481m	0.005m	-0.001m	-0.63
			Dist.	4748.635m	0.002m	0.001m	0.78
B610	CP1243	CP1210	**Az.**	338°27'27.3603"	0°00'00.1020"	-0°00'00.0716"	-0.29
			ΔHt.	-0.270m	0.007m	-0.040m	-1.26
			Dist.	6845.194m	0.003m	-0.002m	-0.24
B2380	CP5334	CP5340	**Az.**	314°09'40.8831"	0°00'00.0992"	0°00'00.0525"	1.26
			ΔHt.	0.572m	0.034m	-0.014m	-0.95
			Dist.	26413.229m	0.015m	-0.007m	-0.94
B2326	CP1130	CP1189	**Az.**	88°09'05.9895"	0°00'00.1108"	0°00'00.1068"	0.83
			ΔHt.	3.031m	0.006m	-0.005m	-0.67
			Dist.	4819.568m	0.003m	0.003m	1.26
B1088	OKEEPORT RESET	CP1001	**Az.**	92°18'29.5677"	0°00'00.2905"	0°00'00.3214"	1.24
			ΔHt.	-0.082m	0.032m	-0.038m	-1.01
			Dist.	6381.268m	0.009m	-0.013m	-1.26
B955	CP1172	CP1230	**Az.**	0°32'58.4575"	0°00'00.1011"	0°00'00.5805"	1.26
			ΔHt.	1.651m	0.010m	0.151m	0.92
			Dist.	8082.795m	0.004m	-0.055m	-0.99

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B963	CP1165	CP1225	**Az.**	291°42'56.7773"	0°00'00.1508"	0°00'00.1530"	0.76
			ΔHt.	2.459m	0.012m	0.014m	1.25
			Dist.	6814.735m	0.005m	0.003m	0.68
B1836	CP1033	CP1035	**Az.**	91°10'30.8801"	0°00'00.2854"	0°00'00.0577"	0.24
			ΔHt.	-0.265m	0.023m	-0.026m	-1.25
			Dist.	4693.359m	0.008m	0.003m	0.32
B1983	CP1141	CP1142	**Az.**	184°56'16.7487"	0°00'00.2058"	0°00'00.1124"	0.54
			ΔHt.	0.755m	0.005m	-0.005m	-0.93
			Dist.	1947.766m	0.002m	-0.002m	-1.25
B2125	CP1032	CP5128	**Az.**	196°07'13.3351"	0°00'00.4982"	0°00'00.2369"	1.25
			ΔHt.	-0.062m	0.034m	0.017m	1.13
			Dist.	2996.625m	0.008m	-0.001m	-0.35
B166	CP1157	CP1154	**Az.**	123°09'26.1572"	0°00'00.1288"	0°00'00.0505"	0.70
			ΔHt.	-0.071m	0.014m	0.015m	1.25
			Dist.	7319.796m	0.007m	0.011m	1.10
B2201	CP5190	CP5188	**Az.**	165°11'17.6402"	0°00'01.6321"	-0°00'00.4449"	-0.18
			ΔHt.	-0.639m	0.010m	0.020m	1.25
			Dist.	490.534m	0.005m	-0.003m	-0.35
B1887	CP1204	CP3006	**Az.**	258°24'34.6648"	0°00'00.3609"	-0°00'00.1177"	-0.64
			ΔHt.	1.380m	0.013m	-0.001m	-0.11
			Dist.	1998.390m	0.004m	0.003m	1.25
B2255	CP1119	CP5227	**Az.**	131°29'13.8880"	0°00'00.9288"	0°00'00.8219"	1.04
			ΔHt.	-0.281m	0.014m	0.018m	1.25
			Dist.	914.212m	0.005m	0.005m	1.11
B1945	CP5107	CP5114A	**Az.**	350°53'53.5825"	0°00'01.3318"	-0°00'00.0856"	-0.08
			ΔHt.	1.404m	0.012m	0.009m	0.81
			Dist.	628.157m	0.005m	-0.005m	-1.25
B653	CP1250	CP1199	**Az.**	57°17'40.1998"	0°00'00.1096"	0°00'00.0458"	0.68
			ΔHt.	0.239m	0.013m	-0.010m	-1.25
			Dist.	8913.443m	0.004m	0.003m	1.20
B892	CP1166	CP1167	**Az.**	0°20'12.2613"	0°00'00.4128"	0°00'00.0224"	0.12
			ΔHt.	-0.219m	0.012m	0.000m	0.06
			Dist.	2604.048m	0.005m	0.003m	1.25
B915	CP1226	CP1100	**Az.**	318°02'24.0599"	0°00'00.4511"	-0°00'00.1102"	-0.57
			ΔHt.	2.386m	0.014m	-0.007m	-1.24
			Dist.	2369.370m	0.006m	0.002m	0.66

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B2342	CP1188	CP1012	**Az.**	43°09'25.9860"	0°00'00.3031"	0°00'00.1484"	0.85
			ΔHt.	1.453m	0.011m	-0.009m	-1.24
			Dist.	3243.826m	0.004m	-0.002m	-0.66
B527	CP1085	CP1086	**Az.**	191°50'07.7201"	0°00'00.9054"	0°00'00.0579"	0.13
			ΔHt.	0.358m	0.016m	-0.011m	-1.24
			Dist.	1463.488m	0.007m	0.003m	0.98
B97	CP1193	CP1234	**Az.**	115°19'18.6674"	0°00'00.0791"	0°00'00.0462"	0.85
			ΔHt.	0.320m	0.011m	0.004m	0.69
			Dist.	12511.517m	0.005m	-0.004m	-1.24
B417	CP1220	CP1074	**Az.**	234°01'05.5626"	0°00'00.1884"	-0°00'00.1261"	-1.19
			ΔHt.	1.459m	0.014m	0.000m	0.02
			Dist.	5936.822m	0.005m	-0.004m	-1.24
B48	CP1241	FDEM-PB1	**Az.**	315°49'09.7177"	0°00'00.1637"	-0°00'00.0759"	-1.24
			ΔHt.	-0.772m	0.007m	0.000m	0.08
			Dist.	4110.915m	0.003m	0.000m	-0.27
B816	CP1225	CP1227	**Az.**	41°18'09.1517"	0°00'00.1683"	0°00'00.1743"	1.14
			ΔHt.	-3.149m	0.013m	-0.009m	-0.85
			Dist.	5570.334m	0.005m	0.007m	1.23
B2426	CP5328	CP5318	**Az.**	203°52'08.8766"	0°00'00.2954"	-0°00'00.3820"	-1.23
			ΔHt.	0.019m	0.023m	0.002m	0.09
			Dist.	7993.751m	0.011m	0.001m	0.09
B2171	CP5165	CP5167	**Az.**	45°50'32.2790"	0°00'04.4417"	0°00'02.1125"	0.42
			ΔHt.	-1.112m	0.012m	-0.016m	-1.23
			Dist.	260.928m	0.004m	-0.003m	-0.75
B1345	EDN 6 25	CP1020	**Az.**	292°29'11.7495"	0°00'00.0547"	0°00'00.0010"	0.01
			ΔHt.	-0.462m	0.009m	-0.008m	-0.81
			Dist.	10781.636m	0.003m	-0.006m	-1.23
B405	CP1074	CP1075	**Az.**	332°49'58.5915"	0°00'00.3604"	0°00'00.2073"	1.02
			ΔHt.	0.226m	0.017m	-0.002m	-0.17
			Dist.	3575.268m	0.006m	-0.005m	-1.23
B1569	MF 41	CP1041	**Az.**	278°28'16.0056"	0°00'00.2658"	-0°00'00.4683"	-1.05
			ΔHt.	-1.332m	0.011m	-0.011m	-0.61
			Dist.	4181.868m	0.005m	0.007m	1.22
B1940	CP5105	CP5114A	**Az.**	320°00'04.1253"	0°00'00.3893"	-0°00'00.3793"	-1.22
			ΔHt.	0.914m	0.011m	-0.004m	-0.48
			Dist.	2081.468m	0.005m	-0.002m	-0.39

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B1786	CP1024	CP1023	**Az.**	265°48'34.6252"	0°00'00.3000"	0°00'00.1681"	0.80
			ΔHt.	-0.175m	0.021m	-0.008m	-0.68
			Dist.	5051.244m	0.005m	0.005m	1.22
B2182	CP5175	CP5173	**Az.**	205°36'05.6105"	0°00'02.0837"	-0°00'00.1813"	-0.12
			ΔHt.	-0.462m	0.021m	0.019m	1.22
			Dist.	609.654m	0.008m	0.000m	0.06
B1687	CP1036	CP1238	**Az.**	228°02'41.9538"	0°00'00.1580"	-0°00'00.0978"	-0.99
			ΔHt.	-0.172m	0.009m	-0.002m	-0.42
			Dist.	4931.738m	0.004m	0.003m	1.22
B665	CP1199	CP1052	**Az.**	126°50'25.6713"	0°00'00.1040"	-0°00'00.0605"	-1.14
			ΔHt.	0.646m	0.013m	0.003m	0.42
			Dist.	8729.990m	0.005m	-0.003m	-1.22
B1288	CP1017	CP1016	**Az.**	286°30'53.8633"	0°00'00.5088"	0°00'00.3987"	1.21
			ΔHt.	-0.300m	0.012m	0.002m	0.35
			Dist.	1884.637m	0.005m	-0.002m	-0.68
B1067	CP1230	CP1231	**Az.**	71°12'18.9227"	0°00'00.2470"	-0°00'00.4817"	-0.56
			ΔHt.	2.074m	0.025m	-0.033m	-0.39
			Dist.	6759.694m	0.006m	0.006m	1.21
B278	CP1222	CP1223	**Az.**	259°18'59.3781"	0°00'00.1487"	-0°00'00.1008"	-0.62
			ΔHt.	1.271m	0.017m	-0.023m	-1.21
			Dist.	8148.518m	0.006m	-0.006m	-0.98
B2445	CP5310	CP5309	**Az.**	160°53'26.5716"	0°00'00.4103"	-0°00'00.0493"	-0.24
			ΔHt.	0.530m	0.014m	-0.004m	-0.58
			Dist.	2581.396m	0.006m	0.004m	1.21
B1380	CP1002	CP1121	**Az.**	279°57'43.5414"	0°00'01.6662"	-0°00'00.8025"	-0.86
			ΔHt.	-1.651m	0.047m	-0.034m	-1.21
			Dist.	2657.584m	0.010m	-0.002m	-0.34
B270	CP1085	CP1242	**Az.**	102°45'07.8608"	0°00'00.1997"	-0°00'00.2118"	-1.20
			ΔHt.	0.339m	0.013m	0.004m	0.40
			Dist.	6222.305m	0.006m	-0.004m	-0.77
B1694	CP1036	CP1037	**Az.**	103°52'20.7622"	0°00'00.1008"	-0°00'00.0416"	-0.51
			ΔHt.	-0.456m	0.009m	0.006m	0.59
			Dist.	6629.443m	0.004m	0.005m	1.20
B1131	CP1187	CP1183	**Az.**	155°57'15.1864"	0°00'00.2247"	0°00'00.2241"	1.20
			ΔHt.	1.967m	0.022m	0.009m	0.55
			Dist.	6379.277m	0.009m	0.008m	1.01

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B321	CP1222	CP1159	**Az.**	341°29'30.8145"	0°00'00.1299"	0°00'00.2739"	1.20
			ΔHt.	-0.888m	0.016m	-0.014m	-0.74
			Dist.	8175.707m	0.005m	0.003m	0.38
B1462	CP1237	CP1257	**Az.**	272°24'48.0437"	0°00'00.1283"	-0°00'00.0267"	-0.87
			ΔHt.	-0.673m	0.014m	-0.007m	-1.19
			Dist.	4819.562m	0.003m	0.000m	-0.21
B2178	CP5170	CP5173	**Az.**	23°03'42.9046"	0°00'01.3060"	0°00'00.0163"	0.02
			ΔHt.	0.837m	0.016m	-0.016m	-1.19
			Dist.	769.444m	0.006m	-0.001m	-0.16
B980	CP1228	CP1104	**Az.**	323°22'36.1933"	0°00'00.1655"	0°00'00.1899"	0.64
			ΔHt.	1.685m	0.019m	-0.002m	-0.08
			Dist.	8839.501m	0.007m	0.036m	1.19
B500	CP1080	Q 519	**Az.**	274°58'33.1682"	0°00'00.0390"	-0°00'00.0422"	-1.19
			ΔHt.	-0.240m	0.012m	-0.008m	-0.80
			Dist.	24715.322m	0.005m	-0.003m	-0.62
B350	CP1217	CP1216	**Az.**	64°53'08.0562"	0°00'00.2887"	-0°00'00.1285"	-0.41
			ΔHt.	-2.139m	0.028m	-0.029m	-1.02
			Dist.	7891.955m	0.010m	0.012m	1.19
B1134	CP1108	B 529	**Az.**	345°20'51.6281"	0°00'00.1056"	0°00'00.2177"	1.19
			ΔHt.	1.059m	0.013m	0.004m	0.35
			Dist.	8767.734m	0.004m	-0.001m	-0.23
B2376	CP1138	CP5343	**Az.**	97°34'54.8248"	0°00'00.2156"	-0°00'00.1349"	-1.19
			ΔHt.	-7.432m	0.038m	-0.011m	-0.58
			Dist.	10181.295m	0.010m	0.004m	0.90
B958	CP1178	K 523	**Az.**	65°14'15.9193"	0°00'00.3536"	-0°00'00.3999"	-1.19
			ΔHt.	3.820m	0.025m	0.007m	0.28
			Dist.	4397.425m	0.007m	0.000m	-0.03
B1992	CP5111	CP5118	**Az.**	198°03'06.2479"	0°00'00.3412"	-0°00'00.0384"	-0.13
			ΔHt.	0.397m	0.012m	-0.005m	-0.76
			Dist.	2263.876m	0.004m	0.003m	1.19
B153	FDEM-PB1	CP1150	**Az.**	265°52'04.8898"	0°00'00.0361"	-0°00'00.0222"	-0.52
			ΔHt.	1.253m	0.009m	-0.010m	-1.19
			Dist.	17143.901m	0.004m	0.001m	0.12
B324	CP1160	CP1224	**Az.**	256°21'06.3076"	0°00'00.0940"	-0°00'00.0853"	-0.77
			ΔHt.	0.438m	0.014m	-0.003m	-0.22
			Dist.	9827.816m	0.005m	-0.007m	-1.19

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B373	CP1073	Y 530	**Az.**	211°14'05.6156"	0°00'00.1235"	-0°00'00.1238"	-0.53
			ΔHt.	-1.018m	0.017m	0.005m	0.14
			Dist.	10240.356m	0.007m	-0.015m	-1.18
B2341	CP1188	CP5345	**Az.**	82°36'40.3669"	0°00'00.2461"	0°00'00.0503"	0.52
			ΔHt.	1.029m	0.014m	-0.001m	-0.12
			Dist.	4348.993m	0.004m	0.002m	1.18
B986	CP1229	CP1230	**Az.**	51°28'17.3424"	0°00'00.1106"	-0°00'00.0584"	-0.74
			ΔHt.	-0.362m	0.010m	0.008m	1.18
			Dist.	6852.869m	0.004m	0.003m	0.83
B786	Y 535	FDEM-BC2	**Az.**	339°19'29.0541"	0°00'01.5082"	-0°00'00.1938"	-0.36
			ΔHt.	0.030m	0.011m	0.002m	0.81
			Dist.	463.775m	0.003m	-0.001m	-1.18
B835	CP1097	CP1098	**Az.**	93°34'53.9672"	0°00'00.2320"	0°00'00.1491"	1.09
			ΔHt.	-0.951m	0.008m	0.000m	-0.04
			Dist.	3063.659m	0.003m	0.002m	1.18
B1965	CP5114B	CP5117	**Az.**	321°01'57.4950"	0°00'00.8801"	-0°00'01.7242"	-1.18
			ΔHt.	0.643m	0.013m	0.006m	0.27
			Dist.	985.930m	0.004m	-0.001m	-0.15
B2227	CP5214	CP5216	**Az.**	268°49'07.8161"	0°00'02.6987"	0°00'01.1787"	0.62
			ΔHt.	0.462m	0.021m	-0.020m	-1.18
			Dist.	391.583m	0.006m	-0.002m	-0.43
B2172	CP1183	CP5167	**Az.**	20°56'22.9008"	0°00'02.3394"	0°00'00.8147"	0.41
			ΔHt.	-1.316m	0.012m	-0.011m	-1.17
			Dist.	437.106m	0.005m	-0.004m	-1.11
B1564	CP1065	CP1064	**Az.**	165°03'03.5014"	0°00'00.2439"	0°00'00.0182"	0.19
			ΔHt.	-0.575m	0.007m	0.003m	1.17
			Dist.	2520.582m	0.003m	0.000m	-0.38
B689	CP1202	CP1054	**Az.**	168°07'18.7964"	0°00'00.0768"	0°00'00.0387"	0.62
			ΔHt.	2.576m	0.012m	-0.009m	-0.93
			Dist.	11506.603m	0.004m	-0.003m	-1.16
B516	CP1071	CP1072	**Az.**	335°18'34.4667"	0°00'01.5440"	-0°00'00.2153"	-0.30
			ΔHt.	-0.249m	0.020m	-0.008m	-1.00
			Dist.	1555.874m	0.009m	-0.006m	-1.16
B1977	CP1200	CP5118	**Az.**	77°58'15.9196"	0°00'00.3677"	-0°00'00.4878"	-1.16
			ΔHt.	-0.068m	0.017m	-0.005m	-0.22
			Dist.	3318.073m	0.005m	0.002m	0.57

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2451	CP5307	CP5305	**Az.**	32°02'02.1573"	0°00'00.1692"	0°00'00.1601"	1.16
			ΔHt.	-0.217m	0.016m	-0.006m	-0.37
			Dist.	5819.730m	0.005m	0.002m	0.48
B1905	CP1212	CP1216	**Az.**	249°07'23.5967"	0°00'00.2280"	0°00'00.0193"	0.11
			ΔHt.	-1.293m	0.021m	0.019m	1.16
			Dist.	7293.989m	0.007m	-0.004m	-0.75
B1611	FLGPS 67	CP1033	**Az.**	179°14'17.9201"	0°00'00.2192"	-0°00'00.1557"	-0.49
			ΔHt.	0.227m	0.021m	-0.037m	-1.16
			Dist.	6664.592m	0.006m	0.006m	0.47
B1059	CP1096	CP1101	**Az.**	26°28'50.2176"	0°00'00.1895"	0°00'00.2223"	0.73
			ΔHt.	-1.327m	0.016m	-0.017m	-0.32
			Dist.	8931.475m	0.007m	0.030m	1.14
B2416	CP1068	CP5322	**Az.**	297°54'03.0838"	0°00'00.1177"	-0°00'00.0909"	-1.14
			ΔHt.	0.120m	0.016m	0.003m	0.22
			Dist.	11849.296m	0.005m	0.001m	0.40
B619	CP1197	CP1234	**Az.**	61°56'30.7430"	0°00'00.1106"	0°00'00.0918"	1.14
			ΔHt.	0.931m	0.013m	0.006m	0.66
			Dist.	8970.879m	0.005m	0.000m	0.06
B1561	CP1065	FDEM-BC1	**Az.**	202°28'38.0122"	0°00'00.1107"	-0°00'00.0605"	-0.81
			ΔHt.	0.112m	0.011m	-0.008m	-1.14
			Dist.	7152.117m	0.004m	0.000m	0.14
B505	CP1220	CP1076	**Az.**	281°52'15.0704"	0°00'00.0929"	-0°00'00.0384"	-0.62
			ΔHt.	2.028m	0.010m	-0.003m	-0.33
			Dist.	8995.965m	0.004m	-0.005m	-1.14
B130	CP1305-PA1	CP1304-PA1	**Az.**	102°38'21.2492"	0°00'00.3151"	0°00'00.2370"	1.11
			ΔHt.	-0.277m	0.009m	0.006m	1.13
			Dist.	2458.466m	0.005m	0.001m	0.25
B495	CP1079	CP1221	**Az.**	82°56'48.4319"	0°00'00.1877"	-0°00'00.0333"	-0.22
			ΔHt.	-1.583m	0.025m	-0.008m	-0.40
			Dist.	8303.118m	0.007m	0.006m	1.13
B2139	CP1248	CP5128	**Az.**	72°38'43.7755"	0°00'00.2844"	0°00'00.1631"	1.02
			ΔHt.	-0.177m	0.035m	0.000m	0.00
			Dist.	5168.049m	0.010m	0.007m	1.13
B2029	CP5131	CP5132	**Az.**	279°30'48.6552"	0°00'00.6056"	0°00'00.7238"	0.71
			ΔHt.	0.084m	0.008m	-0.017m	-1.13
			Dist.	756.832m	0.003m	0.003m	0.60

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B933	CP1162	CP1092	**Az.**	277°26'16.9712"	0°00'00.2026"	0°00'00.2196"	1.13
			ΔHt.	0.630m	0.019m	-0.014m	-0.68
			Dist.	5046.941m	0.007m	0.002m	0.30
B138	CP1303-PA1	CP1304-PA1	**Az.**	307°19'39.4667"	0°00'00.2014"	-0°00'00.0503"	-0.22
			ΔHt.	1.514m	0.009m	-0.008m	-1.13
			Dist.	4071.739m	0.004m	0.000m	0.02
B1757	CP1206	CP1194	**Az.**	153°11'47.0909"	0°00'00.1267"	-0°00'00.0818"	-1.06
			ΔHt.	-0.674m	0.017m	-0.002m	-0.16
			Dist.	9063.289m	0.006m	0.004m	1.13
B1788	CP1302-PA1	CP2000	**Az.**	352°27'10.2409"	0°00'04.3558"	-0°00'00.0952"	-0.07
			ΔHt.	-0.475m	0.008m	-0.001m	-0.55
			Dist.	160.169m	0.003m	0.001m	1.12
B1459	CP1135	CP1022	**Az.**	62°41'46.6696"	0°00'00.1854"	0°00'00.2426"	1.12
			ΔHt.	1.814m	0.019m	-0.001m	-0.06
			Dist.	6039.041m	0.005m	-0.002m	-0.28
B2352	CP5341	CP5338	**Az.**	182°13'48.6851"	0°00'00.1336"	-0°00'00.0623"	-0.55
			ΔHt.	-0.087m	0.020m	-0.025m	-1.12
			Dist.	11771.969m	0.008m	0.003m	0.41
B1762	CP1023	CP1245	**Az.**	191°38'33.6829"	0°00'00.1272"	-0°00'00.0843"	-1.12
			ΔHt.	-3.327m	0.014m	-0.007m	-0.93
			Dist.	7847.589m	0.005m	0.003m	0.62
B2236	CP1003	CP5207	**Az.**	60°39'46.0008"	0°00'01.8194"	-0°00'00.5909"	-0.72
			ΔHt.	-0.173m	0.010m	-0.005m	-1.11
			Dist.	402.703m	0.003m	0.001m	0.48
B1471	CP1255	CP1259	**Az.**	57°14'46.5324"	0°00'00.1274"	-0°00'00.1309"	-1.11
			ΔHt.	0.304m	0.016m	-0.003m	-0.18
			Dist.	10471.012m	0.005m	-0.004m	-0.75
B1375	CP1010	CP1012	**Az.**	87°48'21.8464"	0°00'00.9028"	0°00'01.0105"	1.10
			ΔHt.	1.044m	0.016m	0.019m	0.95
			Dist.	3258.547m	0.008m	-0.002m	-0.31
B414	CP1210	CP1216	**Az.**	4°04'08.7624"	0°00'00.1940"	-0°00'00.0995"	-0.36
			ΔHt.	-1.881m	0.023m	-0.028m	-1.10
			Dist.	8900.941m	0.008m	0.006m	0.62
B1802	K 413	CP1239	**Az.**	343°04'29.0344"	0°00'00.0879"	-0°00'00.1687"	-1.10
			ΔHt.	0.845m	0.015m	0.001m	0.06
			Dist.	7623.593m	0.004m	-0.003m	-0.64

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B1702	CP1036	CP1042	**Az.**	156°50'14.1044"	0°00'00.0752"	0°00'00.1102"	1.10
			ΔHt.	-1.094m	0.008m	-0.003m	-0.28
			Dist.	9926.588m	0.003m	0.001m	0.13
B2457	CP5309	CP5311	**Az.**	330°46'50.9323"	0°00'00.2313"	-0°00'00.0411"	-0.22
			ΔHt.	-0.750m	0.013m	0.004m	0.32
			Dist.	4129.601m	0.005m	0.005m	1.10
B920	CP1171	CP1170	**Az.**	270°07'29.1104"	0°00'00.2676"	-0°00'00.0437"	-0.37
			ΔHt.	-0.083m	0.005m	0.000m	0.11
			Dist.	1718.486m	0.002m	0.001m	1.09
B1736	CP1024	C 547	**Az.**	72°13'39.9074"	0°00'00.1413"	0°00'00.0823"	1.09
			ΔHt.	-0.558m	0.019m	0.007m	0.90
			Dist.	10176.175m	0.005m	0.003m	1.04
B2267	CP5210	CP5214	**Az.**	278°14'03.6324"	0°00'00.8901"	0°00'00.0184"	0.05
			ΔHt.	0.772m	0.013m	-0.006m	-1.09
			Dist.	1155.945m	0.005m	0.001m	0.61
B67	CP1141	CP1247	**Az.**	77°00'26.0768"	0°00'00.0856"	0°00'00.0320"	0.30
			ΔHt.	-0.441m	0.007m	-0.010m	-1.08
			Dist.	5622.396m	0.003m	-0.002m	-0.58
B134	C 414	CP1147	**Az.**	124°11'29.1857"	0°00'00.4159"	0°00'00.9931"	1.08
			ΔHt.	-6.647m	0.005m	0.004m	0.26
			Dist.	1259.571m	0.002m	0.000m	0.02
B1439	CP1189	CP1017	**Az.**	12°20'46.1889"	0°00'00.2370"	0°00'00.1697"	1.08
			ΔHt.	0.994m	0.009m	-0.002m	-0.38
			Dist.	3113.189m	0.004m	0.000m	-0.12
B1778	CP1028	CP1027	**Az.**	319°42'11.6225"	0°00'00.2902"	0°00'00.1298"	1.08
			ΔHt.	-0.232m	0.012m	-0.003m	-0.54
			Dist.	3600.920m	0.005m	0.001m	0.56
B2360	CP1203	CP5316	**Az.**	325°20'02.2942"	0°00'00.0812"	0°00'00.0531"	1.08
			ΔHt.	0.106m	0.014m	-0.003m	-0.34
			Dist.	13320.666m	0.004m	0.000m	-0.15
B129	CP1305-PA1	CP1219	**Az.**	231°18'23.6897"	0°00'00.1479"	0°00'00.1262"	1.08
			ΔHt.	0.630m	0.011m	-0.008m	-0.80
			Dist.	5173.250m	0.004m	0.002m	0.61
B1789	CP1301-PA1	CP2000	**Az.**	69°36'44.2270"	0°00'00.5576"	0°00'00.2108"	1.08
			ΔHt.	-0.947m	0.008m	0.002m	0.74
			Dist.	1097.603m	0.003m	0.000m	-0.21

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2223	CP5219	CP5222	**Az.**	206°10'22.3577"	0°00'01.1209"	0°00'02.5887"	1.08
			ΔHt.	-0.995m	0.010m	0.005m	0.28
			Dist.	1148.502m	0.005m	-0.010m	-1.00
B1999	CP5134	CP5131	**Az.**	25°01'33.1260"	0°00'01.0512"	0°00'01.4365"	0.35
			ΔHt.	-0.916m	0.008m	0.031m	1.07
			Dist.	589.094m	0.002m	-0.005m	-0.67
B2141	CP1248	CP5127	**Az.**	337°56'19.2058"	0°00'00.1399"	-0°00'00.0163"	-0.22
			ΔHt.	0.780m	0.008m	-0.005m	-1.07
			Dist.	4305.202m	0.004m	-0.001m	-0.24
B910	CP1227	CP1168	**Az.**	121°45'15.1520"	0°00'00.1494"	-0°00'00.0491"	-0.18
			ΔHt.	0.265m	0.006m	-0.007m	-0.86
			Dist.	3345.045m	0.003m	-0.003m	-1.07
B984	CP1165	CP1166	**Az.**	0°15'19.6400"	0°00'01.0595"	-0°00'00.0587"	-0.10
			ΔHt.	-0.792m	0.012m	0.003m	0.68
			Dist.	1039.190m	0.005m	0.003m	1.07
B905	CP1175	CP1174	**Az.**	229°54'55.5242"	0°00'01.7007"	0°00'01.1316"	1.07
			ΔHt.	-0.630m	0.067m	-0.012m	-0.32
			Dist.	2661.835m	0.013m	0.003m	0.31
B504	CP1071	CP1215	**Az.**	64°00'04.0756"	0°00'00.1192"	-0°00'00.0780"	-0.95
			ΔHt.	-2.892m	0.022m	0.021m	1.07
			Dist.	12168.278m	0.009m	0.004m	0.65
B2042	CP1171	CP5148	**Az.**	268°23'58.6892"	0°00'00.6811"	0°00'02.4021"	0.80
			ΔHt.	-0.461m	0.008m	-0.002m	-0.15
			Dist.	1118.486m	0.003m	0.007m	1.07
B1518	CP1213	CP1262	**Az.**	247°32'45.4919"	0°00'00.2362"	-0°00'00.1269"	-1.06
			ΔHt.	-0.167m	0.017m	-0.005m	-0.65
			Dist.	4273.482m	0.006m	0.002m	0.75
B1898	CP1193	CP3002	**Az.**	158°00'46.2550"	0°00'00.2220"	-0°00'00.0264"	-1.06
			ΔHt.	-1.554m	0.014m	0.000m	-0.58
			Dist.	4323.277m	0.005m	0.000m	0.02
B1230	CP1126	CP1125	**Az.**	315°11'56.3710"	0°00'00.3308"	0°00'00.1850"	1.06
			ΔHt.	0.058m	0.013m	-0.002m	-0.37
			Dist.	2534.323m	0.005m	0.001m	0.48
B782	CP1054	FDEM-S7	**Az.**	206°48'23.7753"	0°00'00.1766"	-0°00'00.0758"	-0.79
			ΔHt.	1.912m	0.011m	-0.001m	-0.27
			Dist.	5303.344m	0.004m	0.004m	1.06

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B2442	CP5306	CP5305	**Az.**	67°35'58.5187"	0°00'00.2659"	-0°00'00.1350"	-1.06
			ΔHt.	-0.891m	0.013m	0.001m	0.11
			Dist.	3283.733m	0.004m	0.000m	0.25
B1009	CP1097	CP1096	**Az.**	270°30'50.6348"	0°00'00.7995"	0°00'00.0414"	0.10
			ΔHt.	0.724m	0.008m	-0.001m	-0.13
			Dist.	894.050m	0.003m	0.001m	1.06
B197	CP1153	CP1154	**Az.**	290°06'11.3587"	0°00'00.1414"	0°00'00.0541"	1.06
			ΔHt.	-2.515m	0.008m	-0.001m	-0.49
			Dist.	4398.336m	0.003m	0.001m	0.67
B2013	CP1160	CP5143	**Az.**	271°22'38.1991"	0°00'00.6184"	0°00'00.5527"	1.06
			ΔHt.	0.175m	0.007m	0.005m	0.98
			Dist.	1020.359m	0.003m	0.001m	0.37
B2233	CP5207	CP5208	**Az.**	273°35'03.3259"	0°00'01.1998"	0°00'00.0593"	0.02
			ΔHt.	0.551m	0.009m	-0.002m	-0.12
			Dist.	637.655m	0.003m	-0.005m	-1.05
B1106	CP1112	CP1113	**Az.**	42°11'07.5386"	0°00'00.3651"	0°00'00.0412"	0.36
			ΔHt.	0.474m	0.021m	0.001m	0.15
			Dist.	3516.710m	0.006m	0.002m	1.05
B2422	CP3010	CP5328	**Az.**	198°07'24.3604"	0°00'00.0835"	0°00'00.0465"	1.05
			ΔHt.	0.585m	0.015m	-0.002m	-0.26
			Dist.	11983.955m	0.006m	-0.002m	-0.68
B2008	CP1159	CP5141	**Az.**	285°16'16.3207"	0°00'00.2756"	0°00'00.2239"	1.05
			ΔHt.	-0.606m	0.011m	-0.006m	-0.88
			Dist.	3050.161m	0.003m	0.000m	0.20
B1585	CP1238	CP1046	**Az.**	184°16'28.8296"	0°00'00.1518"	-0°00'00.1582"	-1.05
			ΔHt.	-1.091m	0.013m	-0.006m	-0.52
			Dist.	7201.160m	0.005m	0.003m	0.86
B421	CP1069	CP1070	**Az.**	270°15'57.3724"	0°00'00.9638"	-0°00'00.1144"	-0.35
			ΔHt.	0.212m	0.035m	0.002m	0.09
			Dist.	2026.634m	0.012m	0.005m	1.04
B596	CP1240	CP1207	**Az.**	89°41'58.1733"	0°00'00.0768"	-0°00'00.0172"	-0.26
			ΔHt.	-3.311m	0.017m	0.019m	1.04
			Dist.	14013.180m	0.006m	-0.001m	-0.23
B1695	CP1036	CP1037	**Az.**	103°52'20.7622"	0°00'00.1008"	0°00'00.0310"	0.21
			ΔHt.	-0.456m	0.009m	0.004m	0.27
			Dist.	6629.443m	0.004m	0.005m	1.04

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B1461	CP1240	CP1252	**Az.**	262°12'55.1658"	0°00'00.0846"	0°00'00.0059"	0.09
			ΔHt.	-1.919m	0.008m	-0.006m	-1.04
			Dist.	7629.758m	0.004m	-0.003m	-0.83
B2117	CP1042	CP3000	**Az.**	304°26'25.1897"	0°00'00.0917"	0°00'00.0322"	0.18
			ΔHt.	0.087m	0.011m	0.001m	0.04
			Dist.	8219.045m	0.004m	0.008m	1.04
B283	CP1083	Q 519	**Az.**	264°11'37.0636"	0°00'00.0367"	-0°00'00.0030"	-0.10
			ΔHt.	1.385m	0.011m	-0.014m	-1.03
			Dist.	22209.464m	0.005m	-0.001m	-0.26
B2161	CP1182	CP5157	**Az.**	238°04'07.0851"	0°00'00.6310"	-0°00'00.5767"	-1.03
			ΔHt.	0.149m	0.010m	-0.001m	-0.15
			Dist.	1559.700m	0.004m	0.002m	0.55
B2015	CP1159	CP5143	**Az.**	315°51'24.5756"	0°00'00.3020"	0°00'00.0918"	0.53
			ΔHt.	0.060m	0.007m	0.002m	0.52
			Dist.	1764.050m	0.003m	0.002m	1.03
B2040	CP5148	CP5147	**Az.**	261°40'12.2098"	0°00'00.9944"	0°00'00.4733"	0.70
			ΔHt.	0.506m	0.009m	0.000m	-0.05
			Dist.	817.200m	0.003m	0.002m	1.03
B1970	CP1200	CP5101	**Az.**	332°40'05.7149"	0°00'00.3439"	-0°00'00.2935"	-1.03
			ΔHt.	-1.275m	0.014m	-0.008m	-0.63
			Dist.	2778.048m	0.005m	-0.001m	-0.14
B1989	CP1247	CP5104	**Az.**	231°09'56.5503"	0°00'00.1368"	-0°00'00.0063"	-0.06
			ΔHt.	-0.028m	0.009m	-0.007m	-1.03
			Dist.	4957.132m	0.003m	-0.001m	-0.42
B2130	CP1030	CP1029	**Az.**	271°23'07.9678"	0°00'00.2378"	0°00'00.0214"	0.10
			ΔHt.	0.881m	0.007m	-0.006m	-1.03
			Dist.	3318.800m	0.003m	0.000m	-0.06
B930	CP1103	CP1104	**Az.**	359°30'45.7769"	0°00'00.1700"	0°00'00.1843"	1.01
			ΔHt.	0.725m	0.017m	-0.013m	-1.03
			Dist.	7509.204m	0.007m	-0.004m	-0.39
B2180	CP5172	CP5173	**Az.**	33°36'49.7633"	0°00'02.4674"	0°00'00.2506"	0.15
			ΔHt.	-0.572m	0.017m	-0.012m	-1.02
			Dist.	462.890m	0.006m	-0.001m	-0.18
B473	FDEM-BC1	CP1068	**Az.**	345°31'56.2377"	0°00'00.0961"	-0°00'00.1081"	-1.02
			ΔHt.	1.760m	0.015m	0.001m	0.07
			Dist.	12085.760m	0.005m	-0.005m	-0.84

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B103	CP1153	CP1305-PA1	**Az.**	187°46'15.0787"	0°00'00.2283"	0°00'00.0143"	0.13
			ΔHt.	-2.018m	0.007m	0.005m	1.02
			Dist.	2519.505m	0.002m	0.001m	0.80
B1668	CP1032	CP1033	**Az.**	110°22'24.5453"	0°00'00.6231"	0°00'00.0854"	0.19
			ΔHt.	-0.278m	0.023m	-0.013m	-1.02
			Dist.	2633.807m	0.007m	0.003m	1.00
B1761	CP1026	CP1194	**Az.**	185°43'01.4359"	0°00'00.0912"	-0°00'00.0382"	-0.81
			ΔHt.	-2.243m	0.013m	0.015m	0.61
			Dist.	10191.105m	0.004m	-0.002m	-1.02
B1614	CP1037	MF 41	**Az.**	159°22'32.6817"	0°00'00.1404"	0°00'00.3482"	1.02
			ΔHt.	0.493m	0.012m	0.015m	0.60
			Dist.	8755.570m	0.005m	-0.010m	-0.96
B2345	CP1138	CP5341	**Az.**	164°30'06.2244"	0°00'00.1582"	-0°00'00.1178"	-1.02
			ΔHt.	-7.958m	0.029m	-0.013m	-0.51
			Dist.	11441.379m	0.009m	0.001m	0.17
B92	FDEM-PB1	CP1197	**Az.**	87°51'49.5954"	0°00'00.0795"	0°00'00.0428"	0.87
			ΔHt.	0.292m	0.010m	0.007m	1.02
			Dist.	8543.739m	0.004m	-0.001m	-0.50
B303	CP1089	CP1088	**Az.**	160°40'02.4954"	0°00'00.2905"	-0°00'00.0057"	-0.04
			ΔHt.	-1.358m	0.018m	-0.007m	-0.70
			Dist.	4743.607m	0.006m	0.003m	1.01
B587	CP1240	CP1210	**Az.**	273°26'50.0386"	0°00'00.0561"	0°00'00.0150"	0.15
			ΔHt.	-0.900m	0.008m	0.009m	0.53
			Dist.	10048.000m	0.004m	0.005m	1.01
B1780	CP1026	CP1027	**Az.**	158°26'52.1651"	0°00'00.6650"	0°00'00.3927"	1.01
			ΔHt.	-0.051m	0.013m	0.003m	0.50
			Dist.	1821.307m	0.005m	0.001m	0.28
B1922	CP1206	CP3001	**Az.**	183°47'21.2888"	0°00'00.2518"	-0°00'00.0659"	-0.40
			ΔHt.	-1.606m	0.022m	0.015m	0.90
			Dist.	7195.961m	0.008m	0.007m	1.01
B1474	CP1214	CP1260	**Az.**	116°28'09.1958"	0°00'00.3151"	-0°00'00.1272"	-0.76
			ΔHt.	0.944m	0.018m	0.010m	0.84
			Dist.	3622.762m	0.006m	-0.003m	-1.01
B1969	CP1241	CP5119	**Az.**	183°37'54.5276"	0°00'01.6578"	-0°00'00.8129"	-1.01
			ΔHt.	-1.461m	0.007m	0.000m	-0.06
			Dist.	384.095m	0.004m	0.001m	0.45

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B1767	CP1192	CP1245	**Az.**	335°06'17.1067"	0°00'00.1557"	-0°00'00.1373"	-0.81
			ΔHt.	-0.350m	0.016m	-0.010m	-0.69
			Dist.	7497.160m	0.006m	0.007m	1.01
B762	CP1237	CP1250	**Az.**	91°08'25.4398"	0°00'00.0731"	-0°00'00.0721"	-1.00
			ΔHt.	-0.107m	0.008m	-0.007m	-1.00
			Dist.	8999.290m	0.004m	-0.002m	-0.52
B744	CP1237	CP1250	**Az.**	91°08'25.4398"	0°00'00.0731"	-0°00'00.0718"	-1.00
			ΔHt.	-0.107m	0.008m	-0.007m	-1.00
			Dist.	8999.290m	0.004m	-0.002m	-0.52
B1910	CP1212	CP3008	**Az.**	167°52'01.4889"	0°00'00.2301"	-0°00'00.0205"	-0.24
			ΔHt.	1.318m	0.017m	0.000m	-0.07
			Dist.	4896.786m	0.006m	0.003m	1.00
B1	CP1204	CP1200	**Az.**	15°02'09.5911"	0°00'00.1363"	-0°00'00.1201"	-1.00
			ΔHt.	0.829m	0.013m	0.010m	0.95
			Dist.	7506.107m	0.004m	-0.001m	-0.51
B2351	CP5341	CP5338	**Az.**	182°13'48.6851"	0°00'00.1336"	-0°00'00.0579"	-0.54
			ΔHt.	-0.087m	0.020m	-0.001m	-0.07
			Dist.	11771.969m	0.008m	-0.007m	-1.00
B1392	CP1014	CP1188	**Az.**	301°49'52.7610"	0°00'00.2810"	0°00'00.2285"	0.89
			ΔHt.	-1.572m	0.014m	-0.001m	-0.06
			Dist.	3729.525m	0.005m	-0.008m	-1.00
B866	CP1109	CP1104	**Az.**	276°43'41.4854"	0°00'00.1251"	-0°00'00.1849"	-0.60
			ΔHt.	2.478m	0.015m	-0.014m	-1.00
			Dist.	9746.010m	0.006m	-0.009m	-0.85
B2059	FLGPS 57	CP5145	**Az.**	231°13'35.2589"	0°00'00.7264"	-0°00'00.6545"	-1.00
			ΔHt.	0.223m	0.007m	-0.002m	-0.39
			Dist.	875.236m	0.002m	0.000m	0.14
B2183	CP5174	CP5173	**Az.**	227°38'02.2568"	0°00'03.4738"	-0°00'00.2859"	-0.11
			ΔHt.	0.222m	0.021m	0.017m	1.00
			Dist.	423.488m	0.007m	0.000m	-0.05
B1533	872 2625 1	CP1209	**Az.**	200°53'10.3270"	0°00'00.0510"	0°00'00.0940"	0.33
			ΔHt.	-1.736m	0.008m	0.018m	0.99
			Dist.	9815.200m	0.003m	-0.002m	-0.35
B861	CP1229	FLGPS 57	**Az.**	167°32'16.5373"	0°00'00.0900"	-0°00'00.0266"	-0.25
			ΔHt.	-2.351m	0.007m	-0.003m	-0.39
			Dist.	6280.118m	0.002m	0.003m	0.99

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B2043	CP5148	CP5149	**Az.**	109°48'10.5273"	0°00'02.7298"	-0°00'00.3833"	-0.28
			ΔHt.	0.927m	0.017m	0.004m	0.45
			Dist.	539.648m	0.007m	0.004m	0.99
B2152	CP1182	CP5158	**Az.**	199°57'55.8400"	0°00'01.0198"	-0°00'00.5015"	-0.79
			ΔHt.	-0.324m	0.010m	-0.001m	-0.21
			Dist.	1025.993m	0.004m	0.002m	0.99
B780	CP1204	CP1237	**Az.**	171°50'16.7351"	0°00'00.1340"	-0°00'00.0214"	-0.20
			ΔHt.	0.616m	0.010m	0.002m	0.23
			Dist.	6301.630m	0.004m	-0.003m	-0.99
B1994	CP1142	CP5104	**Az.**	86°58'17.5548"	0°00'00.2529"	0°00'00.1003"	0.80
			ΔHt.	-1.224m	0.007m	0.004m	0.99
			Dist.	1788.533m	0.003m	0.000m	0.17
B493	CP1076	CP1075	**Az.**	132°17'21.1252"	0°00'00.3488"	-0°00'00.0738"	-0.31
			ΔHt.	-0.344m	0.016m	-0.013m	-0.99
			Dist.	3203.405m	0.006m	-0.003m	-0.66
B282	CP1158	CP1160	**Az.**	299°45'02.9581"	0°00'00.3483"	0°00'00.3027"	0.98
			ΔHt.	0.621m	0.017m	-0.003m	-0.25
			Dist.	3913.778m	0.004m	-0.002m	-0.96
B1830	CP1041	CP1039	**Az.**	42°22'16.7043"	0°00'00.3039"	0°00'00.1108"	0.98
			ΔHt.	-0.315m	0.008m	-0.001m	-0.31
			Dist.	2114.027m	0.004m	0.000m	0.02
B2456	CP5312	CP5305	**Az.**	67°08'55.3137"	0°00'00.1373"	0°00'00.0202"	0.22
			ΔHt.	-1.059m	0.016m	0.001m	0.10
			Dist.	7814.478m	0.005m	-0.003m	-0.98
B2388	CP5327	CP5340	**Az.**	35°46'23.2322"	0°00'00.1219"	-0°00'00.0949"	-0.98
			ΔHt.	-0.702m	0.021m	-0.011m	-0.58
			Dist.	11882.602m	0.008m	-0.001m	-0.10
B2017	CP1219	CP5131	**Az.**	29°19'25.3822"	0°00'00.2253"	-0°00'00.1077"	-0.62
			ΔHt.	-0.185m	0.010m	-0.008m	-0.98
			Dist.	3227.230m	0.003m	0.001m	0.60
B1065	CP1179	CP1178	**Az.**	222°38'04.2076"	0°00'00.5949"	-0°00'00.0118"	-0.02
			ΔHt.	-0.182m	0.022m	-0.029m	-0.33
			Dist.	2735.768m	0.006m	0.006m	0.98
B1963	CP5107	CP5106	**Az.**	270°50'55.2303"	0°00'02.5491"	0°00'01.1164"	0.53
			ΔHt.	0.852m	0.012m	0.005m	0.50
			Dist.	355.784m	0.004m	-0.003m	-0.98

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2121	CP1038	CP5122	**Az.**	54°28'31.3468"	0°00'00.1616"	-0°00'00.0399"	-0.26
			ΔHt.	-1.134m	0.015m	-0.022m	-0.86
			Dist.	8681.466m	0.005m	0.006m	0.98
B2014	CP5143	CP5142	**Az.**	348°19'40.1611"	0°00'00.8437"	0°00'00.1251"	0.30
			ΔHt.	1.133m	0.008m	-0.002m	-0.60
			Dist.	699.177m	0.003m	-0.002m	-0.97
B785	CP1250	CP1202	**Az.**	127°50'24.5839"	0°00'00.1079"	0°00'00.0249"	0.36
			ΔHt.	-0.371m	0.012m	-0.006m	-0.97
			Dist.	7032.830m	0.004m	-0.003m	-0.95
B1429	L 048	CP1189	**Az.**	84°00'49.8685"	0°00'00.1232"	0°00'00.2135"	0.97
			ΔHt.	-2.540m	0.010m	-0.001m	-0.08
			Dist.	5000.153m	0.003m	0.001m	0.14
B2309	CP5181	CP5178	**Az.**	159°56'22.9188"	0°00'00.9975"	0°00'00.2489"	0.42
			ΔHt.	-0.604m	0.013m	0.009m	0.97
			Dist.	734.784m	0.004m	0.001m	0.30
B1727	CP1191	CP1025	**Az.**	65°43'10.2950"	0°00'00.2580"	0°00'00.1353"	0.77
			ΔHt.	2.737m	0.020m	0.013m	0.97
			Dist.	5279.021m	0.006m	0.003m	0.66
B1763	CP1192	CP1245	**Az.**	335°06'17.1067"	0°00'00.1557"	-0°00'00.1908"	-0.81
			ΔHt.	-0.350m	0.016m	-0.008m	-0.34
			Dist.	7497.160m	0.006m	0.015m	0.97
B1842	CP1030	CP1031	**Az.**	80°32'26.8347"	0°00'00.3243"	0°00'00.0002"	0.00
			ΔHt.	-0.197m	0.012m	-0.004m	-0.66
			Dist.	3469.141m	0.004m	0.002m	0.97
B2321	CP5178	CP5179	**Az.**	76°31'39.0871"	0°00'02.7145"	0°00'01.1410"	0.38
			ΔHt.	-0.210m	0.014m	0.014m	0.97
			Dist.	371.718m	0.004m	0.000m	0.03
B1893	CP1202	CP3003	**Az.**	28°46'19.7676"	0°00'00.2693"	-0°00'00.2258"	-0.97
			ΔHt.	0.871m	0.038m	0.002m	0.05
			Dist.	7600.015m	0.013m	0.001m	0.06
B396	CP1069	CP1217	**Az.**	80°29'20.5967"	0°00'00.3880"	-0°00'00.4856"	-0.96
			ΔHt.	-2.056m	0.023m	0.014m	0.21
			Dist.	5677.579m	0.010m	0.006m	0.37
B622	CP1205	CP1208	**Az.**	260°21'54.6111"	0°00'00.0701"	0°00'00.0133"	0.35
			ΔHt.	0.061m	0.009m	-0.006m	-0.96
			Dist.	9456.049m	0.004m	0.001m	0.29

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2434	CP1068	CP5306	**Az.**	146°58'12.1633"	0°00'00.0665"	-0°00'00.0812"	-0.96
			ΔHt.	-2.026m	0.011m	0.008m	0.57
			Dist.	10911.987m	0.004m	-0.001m	-0.15
B2361	CP5316	CP5333	**Az.**	145°04'35.8585"	0°00'00.0678"	0°00'00.0418"	0.96
			ΔHt.	0.199m	0.013m	-0.002m	-0.32
			Dist.	18057.112m	0.004m	-0.002m	-0.86
B1282	CP1124	CP1006	**Az.**	33°29'17.2940"	0°00'00.3556"	0°00'00.0934"	0.96
			ΔHt.	0.574m	0.022m	-0.001m	-0.20
			Dist.	3514.358m	0.007m	0.000m	0.17
B577	CORNER AZ	CP1063	**Az.**	279°35'41.0782"	0°00'00.1779"	0°00'00.0541"	0.47
			ΔHt.	-2.500m	0.017m	0.001m	0.04
			Dist.	7360.961m	0.008m	0.006m	0.96
B926	CP1167	CP1168	**Az.**	7°31'18.5719"	0°00'00.5632"	-0°00'00.2244"	-0.96
			ΔHt.	0.585m	0.008m	0.000m	0.09
			Dist.	1311.326m	0.003m	0.001m	0.91
B1030	CP1096	CP1101	**Az.**	26°28'50.2176"	0°00'00.1895"	-0°00'00.1808"	-0.96
			ΔHt.	-1.327m	0.016m	-0.005m	-0.50
			Dist.	8931.475m	0.007m	-0.003m	-0.50
B2440	CP5306	CP5312	**Az.**	246°51'13.8863"	0°00'00.2176"	-0°00'00.0267"	-0.26
			ΔHt.	0.168m	0.015m	0.000m	0.02
			Dist.	4530.906m	0.004m	0.002m	0.96
B1550	CP1064	Y 535	**Az.**	204°44'51.3533"	0°00'00.1320"	-0°00'00.0629"	-0.38
			ΔHt.	0.075m	0.010m	-0.007m	-0.52
			Dist.	5118.312m	0.003m	0.004m	0.95
B318	CP1087	CP1242	**Az.**	122°42'29.6420"	0°00'00.1655"	-0°00'00.0515"	-0.31
			ΔHt.	0.141m	0.012m	-0.003m	-0.32
			Dist.	7227.491m	0.005m	-0.004m	-0.95
B777	CP1051	FDEM-PS5	**Az.**	37°24'59.4882"	0°00'00.0609"	0°00'00.0111"	0.32
			ΔHt.	2.455m	0.010m	-0.002m	-0.36
			Dist.	12656.614m	0.004m	0.002m	0.95
B1041	CP1099	CP1096	**Az.**	240°07'42.4530"	0°00'00.1662"	0°00'00.0813"	0.95
			ΔHt.	2.188m	0.009m	-0.002m	-0.36
			Dist.	4512.813m	0.003m	0.001m	0.68
B1373	CP1008	CP1007	**Az.**	319°46'22.5777"	0°00'01.1788"	-0°00'00.0370"	-0.13
			ΔHt.	-2.669m	0.011m	-0.001m	-0.35
			Dist.	952.317m	0.004m	0.001m	0.95

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B466	FDEM-BC1	Y 530	**Az.**	317°37'57.6802"	0°00'00.0299"	-0°00'00.0433"	-0.32
			ΔHt.	1.753m	0.021m	-0.007m	-0.18
			Dist.	19967.645m	0.003m	-0.011m	-0.95
B193	CP1211	CP1209	**Az.**	128°04'03.8152"	0°00'00.0616"	0°00'00.0389"	0.59
			ΔHt.	-0.279m	0.008m	0.006m	0.79
			Dist.	10371.697m	0.003m	0.002m	0.94
B1985	CP5119	CP5113	**Az.**	227°09'49.8084"	0°00'00.4404"	-0°00'00.1415"	-0.94
			ΔHt.	1.333m	0.011m	-0.001m	-0.23
			Dist.	2439.673m	0.004m	0.000m	-0.39
B1582	CP1248	CP1029	**Az.**	320°35'20.0357"	0°00'00.1003"	-0°00'00.2018"	-0.55
			ΔHt.	0.726m	0.006m	0.017m	0.94
			Dist.	5236.553m	0.003m	0.001m	0.07
B2346	CP5343	CP5341	**Az.**	216°02'53.8645"	0°00'00.1732"	-0°00'00.0386"	-0.44
			ΔHt.	-0.526m	0.039m	-0.011m	-0.51
			Dist.	11967.992m	0.010m	-0.005m	-0.94
B361	CP1220	CP1075	**Az.**	267°16'20.4771"	0°00'00.1518"	0°00'00.0553"	0.70
			ΔHt.	1.685m	0.014m	0.006m	0.94
			Dist.	6442.619m	0.006m	0.002m	0.56
B1451	EDN 6 25	CP1022	**Az.**	261°55'17.5354"	0°00'00.0781"	0°00'00.0612"	0.94
			ΔHt.	-0.796m	0.012m	0.002m	0.26
			Dist.	10328.734m	0.004m	0.003m	0.92
B1931	872 2625 1	CP5102	**Az.**	106°54'35.4074"	0°00'00.2525"	0°00'00.0593"	0.47
			ΔHt.	-2.688m	0.012m	0.000m	-0.01
			Dist.	2620.470m	0.004m	0.002m	0.94
B579	CP1210	CP1065	**Az.**	236°44'39.5815"	0°00'00.0834"	0°00'00.0636"	0.94
			ΔHt.	-0.072m	0.008m	0.003m	0.55
			Dist.	6681.113m	0.003m	0.000m	0.17
B1593	CP1043	MF 41	**Az.**	82°21'55.7285"	0°00'00.1894"	-0°00'00.1326"	-0.63
			ΔHt.	1.035m	0.012m	-0.014m	-0.73
			Dist.	5591.228m	0.006m	-0.008m	-0.94
B1113	CP1119	OKEEPORT RESET	**Az.**	34°17'18.0335"	0°00'00.3479"	-0°00'00.1548"	-0.94
			ΔHt.	-0.185m	0.012m	-0.003m	-0.52
			Dist.	2343.016m	0.004m	-0.002m	-0.86
B136	CP1219	CP1222	**Az.**	299°29'06.3888"	0°00'00.1006"	-0°00'00.0482"	-0.60
			ΔHt.	0.101m	0.015m	-0.009m	-0.72
			Dist.	9296.244m	0.005m	-0.006m	-0.93

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1605	CP1033	CP1034	**Az.**	80°15'18.5898"	0°00'00.4128"	-0°00'00.0132"	-0.06
			ΔHt.	-0.119m	0.025m	-0.004m	-0.22
			Dist.	3570.689m	0.009m	0.005m	0.93
B1503	CP1255	CP1254	**Az.**	233°20'53.1126"	0°00'00.2014"	0°00'00.0865"	0.51
			ΔHt.	0.636m	0.017m	-0.009m	-0.93
			Dist.	6921.668m	0.006m	0.000m	0.02
B985	CP1229	CP1169	**Az.**	170°42'31.3132"	0°00'00.1019"	-0°00'00.0159"	-0.26
			ΔHt.	-1.941m	0.008m	-0.004m	-0.93
			Dist.	6445.532m	0.003m	0.000m	0.30
B1470	CP1255	CP1257	**Az.**	125°26'24.8139"	0°00'00.0579"	-0°00'00.0145"	-0.50
			ΔHt.	-0.146m	0.016m	0.010m	0.93
			Dist.	11043.302m	0.003m	0.000m	0.13
B1517	CP1258	CP1259	**Az.**	90°12'00.0067"	0°00'00.2038"	-0°00'00.0058"	-0.07
			ΔHt.	0.423m	0.011m	-0.004m	-0.93
			Dist.	4863.518m	0.005m	0.000m	-0.10
B2313	CP1189	CP5125	**Az.**	125°40'38.0639"	0°00'00.1748"	-0°00'00.1771"	-0.60
			ΔHt.	1.551m	0.014m	0.011m	0.36
			Dist.	6424.961m	0.008m	-0.017m	-0.92
B2418	CP1068	CP5321	**Az.**	289°54'23.8211"	0°00'00.1375"	0°00'00.0725"	0.92
			ΔHt.	-0.393m	0.015m	-0.003m	-0.32
			Dist.	9017.590m	0.005m	-0.001m	-0.47
B2441	CP5306	CP5303	**Az.**	47°45'18.8499"	0°00'00.1635"	0°00'00.2773"	0.92
			ΔHt.	-1.135m	0.011m	0.017m	0.76
			Dist.	4860.709m	0.003m	-0.002m	-0.34
B264	CP1209	CP1204	**Az.**	94°23'18.7571"	0°00'00.1269"	0°00'00.0648"	0.28
			ΔHt.	-0.896m	0.009m	0.006m	0.54
			Dist.	5652.538m	0.003m	-0.004m	-0.92
B1838	CP1238	CP1045	**Az.**	155°07'18.8799"	0°00'00.0899"	-0°00'00.1139"	-0.74
			ΔHt.	-0.019m	0.009m	-0.013m	-0.92
			Dist.	7933.067m	0.004m	0.004m	0.69
B1302	CP1123	CP1004	**Az.**	38°56'11.4065"	0°00'00.4300"	-0°00'00.5669"	-0.71
			ΔHt.	-2.226m	0.031m	0.058m	0.92
			Dist.	5991.922m	0.011m	0.019m	0.78
B889	CP1098	CP1099	**Az.**	359°06'06.9696"	0°00'00.2299"	-0°00'00.1102"	-0.91
			ΔHt.	-0.512m	0.009m	0.000m	-0.04
			Dist.	2448.301m	0.004m	0.001m	0.59

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1900	CP1202	CP1053	**Az.**	95°50'44.5681"	0°00'00.0992"	-0°00'00.0167"	-0.08
			ΔHt.	4.097m	0.014m	0.011m	0.36
			Dist.	8996.240m	0.005m	-0.007m	-0.91
B2287	CP5228	CP5223	**Az.**	316°40'49.3863"	0°00'00.2790"	-0°00'00.0768"	-0.57
			ΔHt.	0.763m	0.014m	0.005m	0.91
			Dist.	2999.481m	0.004m	-0.001m	-0.76
B2211	CP5229	CP5228	**Az.**	47°39'05.4641"	0°00'00.8880"	0°00'00.3006"	0.68
			ΔHt.	-0.118m	0.016m	0.007m	0.91
			Dist.	1257.426m	0.004m	-0.001m	-0.41
B1506	CP1215	CP1254	**Az.**	83°26'36.8556"	0°00'00.1506"	-0°00'00.0222"	-0.29
			ΔHt.	-1.073m	0.016m	0.008m	0.83
			Dist.	7197.155m	0.006m	-0.003m	-0.91
B1346	EDN 6 25	CP1020	**Az.**	292°29'11.7495"	0°00'00.0547"	-0°00'00.0139"	-0.16
			ΔHt.	-0.462m	0.009m	0.012m	0.91
			Dist.	10781.636m	0.003m	0.005m	0.84
B2170	CP5166	CP5167	**Az.**	79°18'35.8896"	0°00'02.2395"	0°00'01.3537"	0.75
			ΔHt.	-0.248m	0.013m	-0.010m	-0.91
			Dist.	533.739m	0.005m	0.000m	-0.10
B1862	CP1249	CP1195	**Az.**	303°00'25.0184"	0°00'00.2128"	0°00'00.0363"	0.18
			ΔHt.	0.525m	0.012m	-0.008m	-0.72
			Dist.	5070.497m	0.006m	0.005m	0.91
B2448	CP1068	CP5303	**Az.**	121°37'50.1581"	0°00'00.0666"	-0°00'00.0377"	-0.61
			ΔHt.	-3.161m	0.011m	0.006m	0.58
			Dist.	11209.919m	0.004m	-0.003m	-0.91
B368	CP1083	Q 519	**Az.**	264°11'37.0636"	0°00'00.0367"	-0°00'00.0387"	-0.57
			ΔHt.	1.385m	0.011m	-0.016m	-0.91
			Dist.	22209.464m	0.005m	-0.005m	-0.61
B2031	CP1305	CP5135	**Az.**	39°46'12.1655"	0°00'00.4926"	-0°00'00.2196"	-0.90
			ΔHt.	-0.676m	0.012m	-0.002m	-0.30
			Dist.	1984.016m	0.004m	0.002m	0.85
B1049	CP1179	CP1180	**Az.**	57°51'47.3944"	0°00'00.4591"	0°00'00.1726"	0.60
			ΔHt.	-0.098m	0.025m	-0.023m	-0.54
			Dist.	2991.293m	0.006m	0.004m	0.90
B1290	CP1020	CP1019	**Az.**	310°38'55.3338"	0°00'00.1815"	0°00'00.0060"	0.08
			ΔHt.	-0.710m	0.009m	0.001m	0.24
			Dist.	4290.912m	0.004m	0.002m	0.90

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1866	CP1035	CP1036	**Az.**	182°35'30.6195"	0°00'00.2868"	-0°00'00.0168"	-0.08
			ΔHt.	0.211m	0.019m	-0.012m	-0.90
			Dist.	5001.334m	0.005m	0.000m	0.09
B1588	CP1198	CP1196	**Az.**	65°06'04.9761"	0°00'00.1494"	-0°00'00.0562"	-0.53
			ΔHt.	-2.401m	0.015m	0.006m	0.90
			Dist.	9539.194m	0.006m	0.003m	0.87
B1296	CP1010	CP1011	**Az.**	347°01'08.6706"	0°00'00.8048"	0°00'00.3248"	0.49
			ΔHt.	0.608m	0.016m	0.011m	0.89
			Dist.	1588.381m	0.015m	-0.001m	-0.07
B1385	CP1018	CP1017	**Az.**	285°36'05.2637"	0°00'00.5978"	0°00'00.3826"	0.89
			ΔHt.	-0.508m	0.015m	-0.004m	-0.36
			Dist.	2036.836m	0.006m	-0.002m	-0.50
B112	CP1148	CP1211	**Az.**	214°20'00.8181"	0°00'00.0742"	-0°00'00.0089"	-0.13
			ΔHt.	-0.475m	0.008m	-0.004m	-0.50
			Dist.	8015.607m	0.003m	0.003m	0.89
B326	CP1159	CP1160	**Az.**	350°27'52.9661"	0°00'00.3959"	0°00'00.3700"	0.89
			ΔHt.	-0.114m	0.007m	0.002m	0.28
			Dist.	1258.734m	0.003m	-0.003m	-0.89
B2039	CP5145	CP5148	**Az.**	61°01'00.0765"	0°00'00.3279"	0°00'00.1578"	0.58
			ΔHt.	-0.316m	0.008m	0.001m	0.14
			Dist.	2463.031m	0.003m	0.002m	0.89
B1698	CP1246	CP1032	**Az.**	343°29'38.6878"	0°00'00.3235"	-0°00'00.2621"	-0.89
			ΔHt.	0.644m	0.026m	0.005m	0.14
			Dist.	5087.799m	0.008m	0.003m	0.24
B1785	CP1206	CP1026	**Az.**	68°04'53.2411"	0°00'00.2266"	0°00'00.0907"	0.36
			ΔHt.	1.569m	0.020m	0.019m	0.89
			Dist.	5495.264m	0.007m	0.002m	0.36
B88	CP1197	CP1247	**Az.**	309°26'25.0895"	0°00'00.1199"	-0°00'00.0026"	-0.03
			ΔHt.	-0.793m	0.011m	-0.002m	-0.29
			Dist.	6242.979m	0.004m	0.003m	0.89
B819	CP1172	CP1173	**Az.**	69°10'47.3124"	0°00'00.4641"	0°00'00.2483"	0.70
			ΔHt.	0.060m	0.010m	-0.001m	-0.14
			Dist.	1981.717m	0.004m	0.003m	0.89
B2349	CP5341	CP5342	**Az.**	90°11'41.6050"	0°00'00.2213"	0°00'00.0473"	0.36
			ΔHt.	0.046m	0.027m	-0.015m	-0.78
			Dist.	18358.375m	0.013m	0.008m	0.88

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1909	CP1240	CP3008	**Az.**	348°01'12.9212"	0°00'00.1830"	0°00'00.0979"	0.85
			ΔHt.	-0.169m	0.020m	-0.012m	-0.88
			Dist.	7454.854m	0.007m	0.004m	0.76
B2398	CP5315	CP5326	**Az.**	7°25'48.2855"	0°00'00.8349"	-0°00'00.1040"	-0.13
			ΔHt.	-0.661m	0.040m	-0.029m	-0.80
			Dist.	4795.148m	0.019m	0.014m	0.88
B177	CP1154	CP1222	**Az.**	252°15'57.4259"	0°00'00.1102"	0°00'00.0400"	0.35
			ΔHt.	1.229m	0.014m	-0.011m	-0.88
			Dist.	8753.873m	0.005m	-0.001m	-0.24
B2165	CP5157	CP5159	**Az.**	58°28'16.0835"	0°00'00.5395"	-0°00'00.2954"	-0.88
			ΔHt.	-0.861m	0.009m	0.000m	-0.09
			Dist.	1751.710m	0.003m	0.001m	0.66
B2354	CP5334	CP5339	**Az.**	319°28'54.1989"	0°00'00.1323"	-0°00'00.0303"	-0.33
			ΔHt.	0.668m	0.035m	-0.022m	-0.88
			Dist.	19795.406m	0.016m	-0.005m	-0.36
B406	CP1079	CP1081	**Az.**	290°12'49.4783"	0°00'00.1637"	-0°00'00.0464"	-0.65
			ΔHt.	-0.372m	0.008m	-0.002m	-0.69
			Dist.	4562.167m	0.003m	-0.001m	-0.88
B25	CP1140	CP1247	**Az.**	97°08'56.4848"	0°00'00.0795"	0°00'00.0562"	0.88
			ΔHt.	-0.322m	0.008m	-0.005m	-0.79
			Dist.	6186.057m	0.003m	0.002m	0.85
B1556	CP1063	CP1062	**Az.**	128°09'12.3664"	0°00'00.1792"	0°00'00.0612"	0.87
			ΔHt.	-0.438m	0.009m	-0.001m	-0.21
			Dist.	3904.525m	0.003m	0.001m	0.80
B824	K 518	CP1101	**Az.**	138°33'53.7623"	0°00'00.1336"	0°00'00.1756"	0.87
			ΔHt.	-25.956m	0.025m	0.000m	0.02
			Dist.	8690.087m	0.009m	0.007m	0.40
B1278	CP1130	CP1017	**Az.**	59°44'55.5147"	0°00'00.1100"	0°00'00.0859"	0.87
			ΔHt.	4.025m	0.009m	0.007m	0.86
			Dist.	6345.664m	0.004m	-0.003m	-0.68
B1794	CP1303-PA1	CP2009	**Az.**	180°10'12.3665"	0°00'04.5798"	0°00'00.0522"	0.01
			ΔHt.	0.187m	0.009m	0.011m	0.87
			Dist.	178.837m	0.004m	0.002m	0.34
B1159	CP1109	CP1108	**Az.**	330°50'45.0875"	0°00'00.3795"	0°00'00.1680"	0.87
			ΔHt.	-0.324m	0.013m	0.002m	0.43
			Dist.	2848.038m	0.005m	0.001m	0.76

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1790	CP1302-PA1	CP2005	**Az.**	264°14'10.9615"	0°00'00.5530"	-0°00'00.3299"	-0.79
			ΔHt.	0.425m	0.010m	-0.006m	-0.87
			Dist.	1161.060m	0.004m	0.001m	0.56
B2115	CP1049	CP5129	**Az.**	43°40'56.7045"	0°00'00.5540"	-0°00'00.3385"	-0.87
			ΔHt.	-2.633m	0.008m	-0.003m	-0.66
			Dist.	1201.271m	0.002m	0.000m	0.26
B465	FDEM-BC1	CP1067	**Az.**	351°53'05.2006"	0°00'00.0982"	-0°00'00.0898"	-0.61
			ΔHt.	0.718m	0.013m	-0.016m	-0.87
			Dist.	10016.559m	0.004m	-0.005m	-0.87
B2228	CP5214	CP5215	**Az.**	332°14'32.6864"	0°00'01.8282"	0°00'00.3284"	0.29
			ΔHt.	0.208m	0.023m	-0.013m	-0.87
			Dist.	838.076m	0.004m	0.000m	0.18
B2179	CP5171	CP5173	**Az.**	33°24'25.1219"	0°00'01.7553"	0°00'00.0347"	0.03
			ΔHt.	-0.130m	0.017m	-0.012m	-0.86
			Dist.	654.465m	0.006m	0.000m	-0.05
B1658	CP1238	CP1249	**Az.**	238°53'40.4212"	0°00'00.3068"	0°00'00.0675"	0.86
			ΔHt.	0.301m	0.009m	-0.001m	-0.31
			Dist.	3332.141m	0.003m	0.001m	0.66
B1959	CP5105	CP5103	**Az.**	280°14'45.9487"	0°00'00.5499"	0°00'00.3130"	0.86
			ΔHt.	-0.795m	0.010m	-0.001m	-0.22
			Dist.	1282.798m	0.004m	0.000m	-0.09
B2134	CP1045	CP5130	**Az.**	2°47'28.1323"	0°00'00.1380"	-0°00'00.0138"	-0.21
			ΔHt.	-0.205m	0.008m	-0.003m	-0.86
			Dist.	4235.310m	0.003m	-0.001m	-0.61
B2438	CP1068	CP5306	**Az.**	146°58'12.1633"	0°00'00.0665"	0°00'00.0439"	0.35
			ΔHt.	-2.026m	0.011m	0.019m	0.72
			Dist.	10911.987m	0.004m	0.008m	0.86
B285	C 519	CP1087	**Az.**	124°00'42.1441"	0°00'00.0470"	-0°00'00.1134"	-0.85
			ΔHt.	-3.526m	0.018m	-0.005m	-0.14
			Dist.	17415.006m	0.004m	0.003m	0.22
B2406	CP5323	CP5324	**Az.**	93°54'59.3083"	0°00'02.9015"	0°00'00.1429"	0.16
			ΔHt.	-0.226m	0.020m	0.005m	0.85
			Dist.	599.536m	0.007m	0.000m	0.07
B2226	CP5214	CP5213	**Az.**	359°55'08.9109"	0°00'01.7626"	0°00'00.2332"	0.24
			ΔHt.	0.701m	0.022m	-0.010m	-0.85
			Dist.	752.089m	0.005m	0.001m	0.45

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2449	CP1068	CP5304	**Az.**	127°54'39.2214"	0°00'00.0604"	-0°00'00.0364"	-0.85
			ΔHt.	-2.947m	0.010m	-0.005m	-0.78
			Dist.	11340.530m	0.004m	-0.001m	-0.41
B2160	CP1182	CP5159	**Az.**	61°47'30.4544"	0°00'04.9723"	0°00'02.5108"	0.85
			ΔHt.	-0.712m	0.010m	-0.002m	-0.46
			Dist.	192.372m	0.004m	0.001m	0.27
B1146	CP1122	CP1185	**Az.**	252°52'24.1798"	0°00'00.4584"	0°00'00.4156"	0.64
			ΔHt.	0.565m	0.009m	0.013m	0.85
			Dist.	1805.262m	0.003m	0.003m	0.51
B2265	CP5216	CP5213	**Az.**	27°11'03.9000"	0°00'01.2148"	0°00'00.0068"	0.01
			ΔHt.	0.239m	0.020m	0.008m	0.84
			Dist.	854.568m	0.006m	-0.001m	-0.26
B298	Q 519	CP1084	**Az.**	80°52'54.5293"	0°00'00.0479"	-0°00'00.0377"	-0.84
			ΔHt.	-1.492m	0.012m	-0.007m	-0.68
			Dist.	21977.581m	0.006m	-0.001m	-0.19
B38	CP1143	FDEM-PB1	**Az.**	94°16'24.4500"	0°00'00.1021"	-0°00'00.0006"	-0.01
			ΔHt.	-0.085m	0.006m	-0.003m	-0.46
			Dist.	3565.059m	0.002m	0.001m	0.84
B1869	CP1246	CP1195	**Az.**	237°17'50.9073"	0°00'00.2640"	-0°00'00.4180"	-0.84
			ΔHt.	0.965m	0.023m	0.012m	0.63
			Dist.	6273.378m	0.008m	-0.003m	-0.41
B394	CP1220	CP1077	**Az.**	295°00'24.5264"	0°00'00.1092"	-0°00'00.0288"	-0.23
			ΔHt.	1.247m	0.011m	-0.008m	-0.84
			Dist.	9307.923m	0.004m	-0.001m	-0.21
B2212	CP5222	CP5224	**Az.**	223°42'12.1534"	0°00'00.7775"	0°00'00.4688"	0.59
			ΔHt.	0.479m	0.024m	-0.022m	-0.84
			Dist.	1934.621m	0.007m	-0.003m	-0.40
B2444	CP5308	CP5310	**Az.**	60°15'10.5194"	0°00'00.2710"	0°00'00.1780"	0.77
			ΔHt.	-1.136m	0.016m	-0.011m	-0.84
			Dist.	5109.669m	0.006m	-0.003m	-0.57
B2307	CP5181	CP5177	**Az.**	186°40'06.2759"	0°00'00.8148"	-0°00'00.2952"	-0.84
			ΔHt.	-0.432m	0.007m	-0.001m	-0.44
			Dist.	660.172m	0.003m	0.000m	0.26
B307	CP1087	CP1088	**Az.**	355°08'17.0976"	0°00'00.5614"	0°00'00.1584"	0.84
			ΔHt.	-1.153m	0.011m	0.000m	0.02
			Dist.	1680.544m	0.004m	0.001m	0.63

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1423	CP1022	CP1021	**Az.**	0°31'37.4635"	0°00'00.1603"	-0°00'00.0397"	-0.84
			ΔHt.	-0.582m	0.009m	0.001m	0.41
			Dist.	3609.774m	0.003m	0.001m	0.52
B1743	H 547	CP1026	**Az.**	215°03'42.5830"	0°00'00.0930"	-0°00'00.0972"	-0.72
			ΔHt.	-0.424m	0.016m	-0.008m	-0.53
			Dist.	11260.102m	0.005m	-0.006m	-0.83
B1879	CP1199	CP3003	**Az.**	145°19'29.3727"	0°00'00.7713"	0°00'00.2593"	0.41
			ΔHt.	0.261m	0.037m	0.001m	0.04
			Dist.	3001.222m	0.012m	0.007m	0.83
B1227	CP1190	CP1021	**Az.**	89°39'13.9549"	0°00'00.1223"	0°00'00.0229"	0.19
			ΔHt.	1.510m	0.009m	-0.006m	-0.58
			Dist.	5370.039m	0.003m	0.002m	0.83
B872	CP1228	CP1229	**Az.**	110°42'08.9747"	0°00'00.1838"	0°00'00.0823"	0.82
			ΔHt.	-2.307m	0.015m	-0.004m	-0.53
			Dist.	7347.907m	0.005m	-0.001m	-0.50
B2423	CP5332	CP5331	**Az.**	265°45'36.5968"	0°00'00.3642"	0°00'00.0581"	0.38
			ΔHt.	1.019m	0.019m	0.007m	0.82
			Dist.	3806.625m	0.006m	0.001m	0.30
B2193	CP1184	CP5174	**Az.**	100°18'13.6667"	0°00'07.7619"	-0°00'00.0693"	-0.02
			ΔHt.	-0.888m	0.017m	0.006m	0.82
			Dist.	175.481m	0.005m	0.000m	0.14
B294	CP1084	CP1085	**Az.**	341°59'19.4459"	0°00'00.3923"	-0°00'00.1311"	-0.45
			ΔHt.	-0.419m	0.013m	0.007m	0.82
			Dist.	3562.218m	0.005m	0.001m	0.17
B1481	CP1211	CP1209	**Az.**	128°04'03.8152"	0°00'00.0616"	0°00'00.0489"	0.81
			ΔHt.	-0.279m	0.008m	0.001m	0.08
			Dist.	10371.697m	0.003m	-0.003m	-0.26
B2192	CP1184	CP5175	**Az.**	27°51'45.3943"	0°00'03.7951"	0°00'00.1548"	0.09
			ΔHt.	-0.204m	0.017m	0.006m	0.81
			Dist.	263.593m	0.006m	0.000m	-0.06
B486	Y 530	CP1076	**Az.**	359°02'03.7022"	0°00'00.0653"	0°00'00.0280"	0.46
			ΔHt.	1.573m	0.015m	-0.001m	-0.11
			Dist.	15915.724m	0.004m	-0.003m	-0.81
B2383	CP5336	CP5333	**Az.**	108°39'51.5536"	0°00'00.1022"	0°00'00.0035"	0.05
			ΔHt.	0.447m	0.013m	-0.001m	-0.13
			Dist.	11163.717m	0.005m	-0.003m	-0.81

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1865	CP1031	CP1246	**Az.**	142°45'46.2348"	0°00'00.2650"	-0°00'00.2302"	-0.81
			ΔHt.	-0.407m	0.024m	0.000m	0.01
			Dist.	6271.923m	0.008m	0.001m	0.08
B2066	CP1172	CP5154	**Az.**	68°37'38.8482"	0°00'00.4333"	-0°00'00.3829"	-0.81
			ΔHt.	0.025m	0.010m	0.003m	0.27
			Dist.	2033.700m	0.003m	-0.001m	-0.12
B2362	CP1012	CP5345	**Az.**	130°48'05.3864"	0°00'00.3822"	-0°00'00.0044"	-0.02
			ΔHt.	-0.424m	0.015m	0.009m	0.80
			Dist.	2765.962m	0.006m	-0.002m	-0.55
B1209	CP1104	CP1105	**Az.**	358°57'03.1993"	0°00'00.1694"	-0°00'00.0424"	-0.80
			ΔHt.	-1.096m	0.007m	0.000m	-0.28
			Dist.	3984.258m	0.003m	0.000m	0.03
B2363	CP1014	CP5345	**Az.**	24°22'46.3269"	0°00'00.4475"	-0°00'00.2476"	-0.80
			ΔHt.	-0.543m	0.017m	-0.009m	-0.77
			Dist.	2772.431m	0.006m	-0.001m	-0.34
B1974	CP5117	CP5115	**Az.**	120°40'56.6573"	0°00'00.7909"	-0°00'00.3403"	-0.80
			ΔHt.	-0.443m	0.018m	-0.002m	-0.24
			Dist.	1646.506m	0.005m	-0.001m	-0.30
B1440	CP1189	CP1017	**Az.**	12°20'46.1889"	0°00'00.2370"	0°00'00.1664"	0.55
			ΔHt.	0.994m	0.009m	-0.006m	-0.80
			Dist.	3113.189m	0.004m	0.001m	0.23
B1412	CP1189	CP1130	**Az.**	268°10'25.6178"	0°00'00.1108"	-0°00'00.0066"	-0.04
			ΔHt.	-3.031m	0.006m	-0.006m	-0.80
			Dist.	4819.568m	0.003m	0.002m	0.38
B2389	CP3010	CP5327	**Az.**	144°57'50.6637"	0°00'00.0889"	-0°00'00.0008"	-0.02
			ΔHt.	-1.016m	0.016m	-0.004m	-0.47
			Dist.	11773.346m	0.006m	-0.002m	-0.80
B407	CP1079	CP1078	**Az.**	147°02'10.5738"	0°00'00.2585"	0°00'00.0268"	0.26
			ΔHt.	-0.270m	0.012m	0.004m	0.80
			Dist.	3840.429m	0.004m	-0.001m	-0.59
B87	CP1241	CP1198	**Az.**	138°24'42.6077"	0°00'00.1397"	0°00'00.0864"	0.37
			ΔHt.	1.460m	0.016m	0.003m	0.10
			Dist.	7652.281m	0.006m	-0.007m	-0.80
B1782	CP1029	CP1028	**Az.**	277°18'04.0970"	0°00'00.1718"	0°00'00.0322"	0.75
			ΔHt.	-0.437m	0.006m	-0.001m	-0.80
			Dist.	2567.696m	0.003m	-0.001m	-0.69

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B617	CP1138	G 489	**Az.**	237°49'49.1656"	0°00'00.4319"	-0°00'00.4056"	-0.79
			ΔHt.	-4.243m	0.013m	0.006m	0.65
			Dist.	2448.207m	0.005m	-0.001m	-0.41
B563	S 410 X	CP1240	**Az.**	347°36'25.0603"	0°00'00.1340"	-0°00'00.0709"	-0.20
			ΔHt.	0.983m	0.020m	-0.039m	-0.79
			Dist.	6651.157m	0.004m	0.005m	0.32
B1629	CP1238	CP1044	**Az.**	143°37'58.0199"	0°00'00.0793"	0°00'00.0437"	0.48
			ΔHt.	-1.108m	0.010m	-0.008m	-0.79
			Dist.	9129.821m	0.004m	0.003m	0.60
B1858	CP1031	CP1032	**Az.**	92°49'07.2034"	0°00'00.7540"	-0°00'00.4897"	-0.43
			ΔHt.	0.237m	0.021m	-0.004m	-0.30
			Dist.	2351.100m	0.007m	-0.004m	-0.79
B716	CP1207	CP1208	**Az.**	303°35'51.4247"	0°00'00.0826"	-0°00'00.0215"	-0.35
			ΔHt.	0.671m	0.011m	-0.007m	-0.79
			Dist.	8588.024m	0.004m	0.002m	0.55
B658	CP1207	CP1208	**Az.**	303°35'51.4247"	0°00'00.0826"	-0°00'00.0214"	-0.35
			ΔHt.	0.671m	0.011m	-0.007m	-0.79
			Dist.	8588.024m	0.004m	0.002m	0.55
B1613	CP1037	MF 41	**Az.**	159°22'32.6817"	0°00'00.1404"	-0°00'00.0923"	-0.29
			ΔHt.	0.493m	0.012m	0.007m	0.26
			Dist.	8755.570m	0.005m	-0.009m	-0.79
B1966	CP5114B	CP5115	**Az.**	95°17'19.9559"	0°00'01.6076"	0°00'00.4534"	0.79
			ΔHt.	0.200m	0.016m	0.002m	0.30
			Dist.	799.342m	0.004m	0.000m	-0.14
B1941	CP5106	CP5114A	**Az.**	22°37'44.8147"	0°00'01.2356"	-0°00'01.4245"	-0.79
			ΔHt.	0.552m	0.010m	-0.011m	-0.74
			Dist.	666.279m	0.004m	-0.001m	-0.11
B2050	CP5152	CP5154	**Az.**	67°33'23.6207"	0°00'00.4016"	0°00'00.5260"	0.70
			ΔHt.	0.097m	0.011m	-0.006m	-0.41
			Dist.	2296.588m	0.004m	0.004m	0.79
B104	CP1153	CP1305-PA1	**Az.**	187°46'15.0787"	0°00'00.2283"	0°00'00.0910"	0.31
			ΔHt.	-2.018m	0.007m	-0.005m	-0.78
			Dist.	2519.505m	0.002m	-0.001m	-0.25
B1925	CP1046	CP3000	**Az.**	12°29'40.6848"	0°00'00.1887"	0°00'00.1658"	0.78
			ΔHt.	0.255m	0.014m	-0.012m	-0.60
			Dist.	6143.777m	0.005m	0.000m	-0.04

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1328	EDN 6 25	CP1021	**Az.**	281°57'27.7195"	0°00'00.0651"	0°00'00.0206"	0.28
			ΔHt.	-1.377m	0.010m	0.005m	0.51
			Dist.	10416.104m	0.003m	0.003m	0.78
B1023	CP1164	CP1225	**Az.**	309°11'12.4249"	0°00'00.1216"	-0°00'00.0994"	-0.70
			ΔHt.	4.509m	0.012m	0.007m	0.66
			Dist.	8149.962m	0.004m	0.003m	0.78
B1640	FLGPS 67	CP1032	**Az.**	202°29'58.5479"	0°00'00.2259"	0°00'00.3798"	0.78
			ΔHt.	0.505m	0.022m	0.026m	0.72
			Dist.	6220.066m	0.007m	-0.005m	-0.42
B937	CP1175	CP1176	**Az.**	47°48'09.7642"	0°00'01.8482"	0°00'00.8693"	0.78
			ΔHt.	-0.333m	0.067m	0.024m	0.62
			Dist.	2404.860m	0.013m	0.000m	-0.04
B2439	CP5306	CP5307	**Az.**	180°47'35.2559"	0°00'00.2530"	0°00'00.0847"	0.59
			ΔHt.	-0.674m	0.016m	0.007m	0.77
			Dist.	3682.569m	0.005m	0.001m	0.39
B2143	CP1048	CP1049	**Az.**	280°56'55.9077"	0°00'00.1297"	-0°00'00.0807"	-0.65
			ΔHt.	2.087m	0.007m	0.005m	0.77
			Dist.	3296.766m	0.003m	-0.002m	-0.74
B424	CP1081	CP1082	**Az.**	268°39'15.6286"	0°00'00.2088"	-0°00'00.0176"	-0.24
			ΔHt.	0.591m	0.007m	-0.002m	-0.77
			Dist.	2839.939m	0.003m	-0.001m	-0.51
B2401	CP5314	CP5322	**Az.**	333°00'11.4025"	0°00'00.2064"	-0°00'00.1330"	-0.77
			ΔHt.	-0.138m	0.014m	0.007m	0.59
			Dist.	6044.962m	0.005m	-0.001m	-0.25
B395	CP1210	CP1217	**Az.**	310°20'02.1175"	0°00'00.1602"	-0°00'00.0196"	-0.10
			ΔHt.	0.258m	0.021m	-0.001m	-0.05
			Dist.	8547.931m	0.009m	0.009m	0.77
B2393	CP5330	CP5332	**Az.**	86°51'49.8229"	0°00'00.3086"	-0°00'00.1614"	-0.77
			ΔHt.	-1.877m	0.025m	0.008m	0.37
			Dist.	7144.384m	0.009m	0.000m	0.02
B1657	CP1238	CP1042	**Az.**	127°34'25.7619"	0°00'00.0639"	0°00'00.0409"	0.67
			ΔHt.	-0.922m	0.009m	-0.007m	-0.65
			Dist.	9556.068m	0.004m	-0.003m	-0.77
B868	CP1098	FISH	**Az.**	253°49'24.1634"	0°00'00.1735"	0°00'00.0008"	0.00
			ΔHt.	-0.289m	0.009m	-0.008m	-0.75
			Dist.	3896.654m	0.003m	0.003m	0.76

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B111	CP1151	CP1303-PA1	**Az.**	164°38'32.9762"	0°00'00.3000"	0°00'00.1426"	0.64
			ΔHt.	-1.888m	0.010m	-0.006m	-0.72
			Dist.	3116.423m	0.004m	-0.002m	-0.76
B880	CP1225	CP1092	**Az.**	170°34'21.9641"	0°00'00.1819"	-0°00'00.1270"	-0.76
			ΔHt.	-3.622m	0.018m	0.000m	0.02
			Dist.	7972.477m	0.006m	-0.001m	-0.25
B2454	CP5313	CP5303	**Az.**	113°40'22.2879"	0°00'00.0950"	0°00'00.0436"	0.59
			ΔHt.	-1.750m	0.011m	0.001m	0.13
			Dist.	8149.595m	0.004m	-0.002m	-0.76
B1291	CP1021	CP1020	**Az.**	6°34'31.4192"	0°00'00.2586"	-0°00'00.0596"	-0.76
			ΔHt.	0.916m	0.008m	0.000m	0.11
			Dist.	1978.716m	0.003m	0.001m	0.49
B1749	CP1025	CP1026	**Az.**	134°07'12.8735"	0°00'00.1397"	-0°00'00.0332"	-0.22
			ΔHt.	-1.152m	0.024m	0.020m	0.76
			Dist.	9331.807m	0.007m	0.005m	0.55
B1987	CP1200	CP5111	**Az.**	54°13'02.9990"	0°00'00.2410"	-0°00'00.1373"	-0.76
			ΔHt.	-0.465m	0.016m	-0.002m	-0.13
			Dist.	4864.229m	0.005m	0.003m	0.75
B2061	CP1171	CP5149	**Az.**	250°40'07.8310"	0°00'02.4329"	-0°00'03.4590"	-0.32
			ΔHt.	0.466m	0.016m	-0.008m	-0.76
			Dist.	646.796m	0.007m	0.005m	0.76
B1063	CP1169	CP1168	**Az.**	205°19'46.1614"	0°00'00.2928"	-0°00'00.0159"	-0.18
			ΔHt.	2.133m	0.005m	0.001m	0.76
			Dist.	1464.308m	0.002m	0.000m	-0.11
B1313	C T2	CP1001	**Az.**	260°46'57.3313"	0°00'00.0929"	0°00'00.0291"	0.11
			ΔHt.	1.314m	0.035m	0.066m	0.71
			Dist.	20927.292m	0.009m	0.015m	0.76
B22	700-93-06-B08	CP1137	**Az.**	309°43'35.1647"	0°00'00.1980"	-0°00'00.0321"	-0.29
			ΔHt.	1.395m	0.013m	0.005m	0.75
			Dist.	6242.346m	0.005m	0.002m	0.74
B2452	CP5308	CP5309	**Az.**	88°57'15.4914"	0°00'00.2105"	0°00'00.2141"	0.75
			ΔHt.	-0.606m	0.014m	-0.007m	-0.39
			Dist.	5283.131m	0.005m	0.002m	0.28
B1172	CP1182	CP1183	**Az.**	54°51'39.2104"	0°00'01.0185"	-0°00'00.4826"	-0.34
			ΔHt.	1.020m	0.014m	-0.020m	-0.75
			Dist.	1291.574m	0.005m	0.004m	0.37

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B983	CP1091a	CP1092	**Az.**	71°57'24.2976"	0°00'00.2669"	-0°00'00.1611"	-0.70
			ΔHt.	-1.147m	0.018m	0.008m	0.71
			Dist.	4609.748m	0.007m	-0.004m	-0.75
B2459	CP5305	CP5311	**Az.**	130°47'29.6865"	0°00'00.3947"	-0°00'00.0425"	-0.55
			ΔHt.	-0.587m	0.009m	0.001m	0.65
			Dist.	1872.165m	0.003m	0.000m	-0.75
B1239	S 191 W	CP1007	**Az.**	50°33'13.4309"	0°00'00.2658"	0°00'00.0370"	0.17
			ΔHt.	-3.734m	0.014m	-0.004m	-0.37
			Dist.	4269.952m	0.006m	0.005m	0.75
B1477	CP1243	CP1251	**Az.**	294°43'23.3438"	0°00'00.1275"	0°00'00.0242"	0.37
			ΔHt.	1.212m	0.006m	-0.001m	-0.37
			Dist.	4551.248m	0.003m	-0.001m	-0.75
B2335	CP1132	CP1189	**Az.**	37°15'33.3678"	0°00'00.1488"	0°00'00.2733"	0.75
			ΔHt.	2.479m	0.009m	-0.002m	-0.08
			Dist.	5377.076m	0.003m	-0.003m	-0.49
B1455	CP1013	CP1012	**Az.**	324°08'01.0112"	0°00'00.7489"	0°00'00.2229"	0.42
			ΔHt.	-0.246m	0.019m	0.009m	0.75
			Dist.	2004.182m	0.009m	0.002m	0.35
B2232	CP5207	CP5208	**Az.**	273°35'03.3259"	0°00'01.1998"	0°00'00.2402"	0.39
			ΔHt.	0.551m	0.009m	-0.004m	-0.75
			Dist.	637.655m	0.003m	0.001m	0.54
B909	CP1162	CP1163	**Az.**	0°07'38.5263"	0°00'00.4491"	-0°00'00.0303"	-0.17
			ΔHt.	0.301m	0.014m	0.005m	0.74
			Dist.	2204.629m	0.004m	0.000m	-0.11
B1693	CP1246	CP1033	**Az.**	14°29'14.0772"	0°00'00.4250"	0°00'00.2416"	0.65
			ΔHt.	0.365m	0.024m	-0.015m	-0.74
			Dist.	4091.001m	0.008m	0.000m	0.01
B2431	CP5328	CP5326	**Az.**	179°12'56.2485"	0°00'00.5222"	-0°00'00.5492"	-0.74
			ΔHt.	-1.243m	0.040m	-0.004m	-0.07
			Dist.	8105.235m	0.017m	-0.007m	-0.33
B1769	CP1028	CP1248	**Az.**	126°39'03.0811"	0°00'00.0860"	0°00'00.0235"	0.27
			ΔHt.	-0.289m	0.008m	-0.001m	-0.10
			Dist.	7320.821m	0.003m	0.003m	0.74
B1251	CP1130	CP1128	**Az.**	331°26'20.3180"	0°00'00.2974"	-0°00'00.2185"	-0.73
			ΔHt.	1.034m	0.023m	-0.011m	-0.47
			Dist.	5580.755m	0.009m	0.002m	0.23

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Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2405	CP5320	CP5323	**Az.**	325°04'34.7685"	0°00'00.8267"	-0°00'01.1310"	-0.73
			ΔHt.	0.043m	0.040m	-0.009m	-0.18
			Dist.	2615.165m	0.016m	-0.011m	-0.40
B663	CP1203	CP1207	**Az.**	282°20'42.3180"	0°00'00.0827"	-0°00'00.0294"	-0.48
			ΔHt.	-0.732m	0.010m	-0.006m	-0.73
			Dist.	7970.502m	0.004m	0.002m	0.68
B1108	CP1119	CP1118	**Az.**	260°05'54.7940"	0°00'00.2491"	0°00'00.0312"	0.25
			ΔHt.	-0.394m	0.012m	0.003m	0.40
			Dist.	3493.360m	0.004m	-0.002m	-0.73
B19	CP1200	CP1145	**Az.**	307°21'22.3677"	0°00'00.1168"	0°00'00.0729"	0.73
			ΔHt.	7.900m	0.013m	0.010m	0.70
			Dist.	7392.423m	0.006m	0.002m	0.40
B4	CP1200	CP1198	**Az.**	87°52'56.5020"	0°00'00.1350"	0°00'00.0956"	0.51
			ΔHt.	1.528m	0.018m	0.015m	0.73
			Dist.	8635.206m	0.006m	-0.003m	-0.22
B423	CP1073	CP1074	**Az.**	319°12'05.9066"	0°00'00.6088"	-0°00'00.4295"	-0.70
			ΔHt.	-0.014m	0.018m	-0.014m	-0.73
			Dist.	2404.199m	0.007m	0.002m	0.20
B208	CP1152	CP1304-PA1	**Az.**	180°50'01.4936"	0°00'00.6711"	0°00'00.2268"	0.50
			ΔHt.	-0.294m	0.010m	0.002m	0.35
			Dist.	1691.372m	0.004m	0.002m	0.73
B2325	CP1130	CP1132	**Az.**	159°15'20.8657"	0°00'00.1398"	-0°00'00.0528"	-0.73
			ΔHt.	0.552m	0.009m	0.001m	0.30
			Dist.	4410.524m	0.004m	0.000m	-0.10
B721	CP1203	CP1207	**Az.**	282°20'42.3180"	0°00'00.0827"	-0°00'00.0295"	-0.48
			ΔHt.	-0.732m	0.010m	-0.006m	-0.73
			Dist.	7970.502m	0.004m	0.002m	0.67
B849	CP1167	CP1225	**Az.**	259°59'01.9331"	0°00'00.1531"	0°00'00.1259"	0.73
			ΔHt.	3.469m	0.012m	-0.001m	-0.12
			Dist.	6449.332m	0.005m	0.001m	0.16
B2234	CP5210	CP5208	**Az.**	184°09'24.5373"	0°00'00.7885"	-0°00'00.0347"	-0.10
			ΔHt.	-0.122m	0.009m	0.003m	0.73
			Dist.	668.815m	0.004m	0.000m	0.30
B271	CP1090	CP1089	**Az.**	215°34'26.1743"	0°00'00.4150"	-0°00'00.0770"	-0.34
			ΔHt.	-0.865m	0.019m	-0.007m	-0.62
			Dist.	3422.536m	0.006m	0.002m	0.72

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1480	CP1237	CP1208	**Az.**	217°50'58.6896"	0°00'00.1154"	-0°00'00.3294"	-0.51
			ΔHt.	0.079m	0.014m	0.034m	0.72
			Dist.	8948.759m	0.005m	0.011m	0.35
B887	CP1180	CP1181	**Az.**	79°49'08.0895"	0°00'00.2159"	0°00'00.0865"	0.19
			ΔHt.	-0.936m	0.010m	0.040m	0.72
			Dist.	2805.418m	0.003m	0.004m	0.40
B179	CP1304-PA1	CP1302-PA1	**Az.**	160°00'43.7512"	0°00'00.3997"	0°00'00.1725"	0.65
			ΔHt.	-1.247m	0.009m	0.004m	0.72
			Dist.	2438.624m	0.004m	0.000m	0.03
B807	FLGPS 57	CP1171	**Az.**	75°21'31.8509"	0°00'00.1648"	-0°00'00.0636"	-0.72
			ΔHt.	0.368m	0.005m	0.001m	0.31
			Dist.	2677.249m	0.002m	0.001m	0.71
B2461	CP1060	CP5309	**Az.**	142°13'36.1217"	0°00'10.8176"	-0°00'01.0737"	-0.72
			ΔHt.	-0.005m	0.006m	0.000m	-0.39
			Dist.	45.770m	0.002m	0.000m	0.34
B1696	CP1036	CP1037	**Az.**	103°52'20.7622"	0°00'00.1008"	-0°00'00.0769"	-0.72
			ΔHt.	-0.456m	0.009m	0.004m	0.65
			Dist.	6629.443m	0.004m	0.000m	-0.12
B2195	CP1183	CP5165	**Az.**	352°12'36.5323"	0°00'02.7296"	-0°00'00.7510"	-0.71
			ΔHt.	-0.204m	0.008m	-0.001m	-0.28
			Dist.	228.577m	0.003m	-0.001m	-0.69
B2291	CP5215	CP5216	**Az.**	180°05'18.5417"	0°00'01.8687"	-0°00'00.5070"	-0.42
			ΔHt.	0.254m	0.023m	-0.010m	-0.71
			Dist.	749.708m	0.005m	-0.001m	-0.48
B2364	CP1138	CP5300	**Az.**	45°42'24.6923"	0°00'00.1595"	0°00'00.0552"	0.52
			ΔHt.	-6.818m	0.046m	-0.023m	-0.71
			Dist.	15216.254m	0.012m	0.003m	0.37
B2437	CP5306	CP5304	**Az.**	54°00'40.4957"	0°00'00.2086"	0°00'00.1200"	0.71
			ΔHt.	-0.921m	0.010m	0.005m	0.65
			Dist.	3708.214m	0.003m	0.000m	0.05
B2394	CP5330	CP5331	**Az.**	88°09'30.6268"	0°00'00.6940"	0°00'00.5686"	0.71
			ΔHt.	-0.858m	0.025m	-0.007m	-0.39
			Dist.	3339.359m	0.009m	0.000m	0.00
B325	CP1224	CP1160	**Az.**	76°18'30.2631"	0°00'00.0940"	0°00'00.0373"	0.17
			ΔHt.	-0.438m	0.014m	0.011m	0.34
			Dist.	9827.816m	0.005m	0.010m	0.71

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Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1327	EDN 6 25	CP1019	**Az.**	297°38'34.7292"	0°00'00.0549"	-0°00'00.0471"	-0.70
			ΔHt.	-1.172m	0.012m	-0.001m	-0.05
			Dist.	14918.073m	0.004m	-0.003m	-0.53
B1701	CP1036	CP1042	**Az.**	156°50'14.1044"	0°00'00.0752"	0°00'00.1024"	0.59
			ΔHt.	-1.094m	0.008m	-0.012m	-0.70
			Dist.	9926.588m	0.003m	-0.004m	-0.56
B11	CP1141	CP1142	**Az.**	184°56'16.7487"	0°00'00.2058"	-0°00'00.1509"	-0.70
			ΔHt.	0.755m	0.005m	0.003m	0.67
			Dist.	1947.766m	0.002m	0.000m	0.16
B1138	CP1110	B 529	**Az.**	313°28'52.8936"	0°00'00.0939"	0°00'00.0100"	0.08
			ΔHt.	1.861m	0.018m	0.005m	0.32
			Dist.	14031.174m	0.005m	-0.004m	-0.70
B366	CP1213	CP1215	**Az.**	219°43'26.6634"	0°00'00.1137"	0°00'00.1612"	0.70
			ΔHt.	0.495m	0.014m	-0.002m	-0.05
			Dist.	8494.731m	0.005m	-0.014m	-0.65
B1444	C T2	CP1005	**Az.**	248°34'06.3497"	0°00'00.1375"	0°00'00.0627"	0.37
			ΔHt.	1.924m	0.037m	-0.025m	-0.69
			Dist.	17448.005m	0.012m	-0.008m	-0.69
B1475	CP1243	CP1252	**Az.**	359°29'22.3329"	0°00'00.1598"	-0°00'00.0193"	-0.24
			ΔHt.	-1.289m	0.007m	0.002m	0.69
			Dist.	4731.030m	0.003m	0.000m	0.36
B1436	CP1011	CP1009	**Az.**	267°10'20.5721"	0°00'01.1220"	0°00'00.3397"	0.61
			ΔHt.	-0.266m	0.013m	0.004m	0.63
			Dist.	858.908m	0.004m	-0.001m	-0.69
B1486	CP1215	CP1262	**Az.**	16°46'17.3089"	0°00'00.2594"	-0°00'00.1136"	-0.69
			ΔHt.	-0.662m	0.019m	0.009m	0.63
			Dist.	5119.745m	0.006m	-0.002m	-0.69
B2323	CP1185	CP5177	**Az.**	57°54'39.1602"	0°00'00.4244"	-0°00'00.1597"	-0.63
			ΔHt.	-1.717m	0.010m	-0.004m	-0.69
			Dist.	2030.044m	0.003m	0.000m	-0.01
B2055	CP1174	CP5155	**Az.**	249°26'38.3956"	0°00'01.2678"	0°00'00.1282"	0.18
			ΔHt.	0.560m	0.010m	-0.003m	-0.69
			Dist.	1051.047m	0.004m	0.000m	0.10
B2446	CP5310	CP5311	**Az.**	314°50'55.0203"	0°00'00.6384"	-0°00'00.0588"	-0.20
			ΔHt.	-0.220m	0.014m	-0.001m	-0.10
			Dist.	1651.735m	0.006m	0.002m	0.69

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2006	CP1153	CP5135	**Az.**	136°17'36.1185"	0°00'00.5567"	0°00'00.1384"	0.53
			ΔHt.	-2.692m	0.010m	0.001m	0.20
			Dist.	1343.862m	0.004m	0.001m	0.69
B2187	CP1183	CP5166	**Az.**	310°01'17.9187"	0°00'01.3688"	-0°00'00.3878"	-0.69
			ΔHt.	-1.068m	0.009m	-0.002m	-0.41
			Dist.	480.887m	0.004m	-0.001m	-0.38
B1731	CP1027	CP1194	**Az.**	191°16'48.4064"	0°00'00.1430"	0°00'00.1010"	0.66
			ΔHt.	-2.192m	0.013m	0.001m	0.08
			Dist.	8612.732m	0.005m	-0.003m	-0.69
B2420	CP5319	CP5324	**Az.**	287°52'36.3636"	0°00'00.3361"	-0°00'00.0054"	-0.03
			ΔHt.	0.211m	0.027m	-0.012m	-0.68
			Dist.	6096.359m	0.010m	0.000m	-0.05
B207	CP1154	CP1219	**Az.**	181°56'36.6840"	0°00'00.1136"	0°00'00.0598"	0.68
			ΔHt.	1.127m	0.010m	-0.003m	-0.32
			Dist.	7246.338m	0.003m	0.001m	0.46
B1272	CP1190	CP1020	**Az.**	70°20'53.4038"	0°00'00.0954"	-0°00'00.0065"	-0.06
			ΔHt.	2.425m	0.008m	0.006m	0.68
			Dist.	5941.767m	0.003m	-0.001m	-0.30
B1241	CP1126	CP1010	**Az.**	50°40'20.1915"	0°00'01.1570"	0°00'00.1507"	0.15
			ΔHt.	2.254m	0.016m	0.007m	0.68
			Dist.	2765.814m	0.006m	-0.002m	-0.65
B1986	CP5118	CP5113	**Az.**	335°28'40.2691"	0°00'00.2343"	-0°00'00.0553"	-0.53
			ΔHt.	0.007m	0.012m	0.002m	0.45
			Dist.	3635.286m	0.005m	0.002m	0.68
B2030	CP5131	CP1305	**Az.**	80°15'59.4816"	0°00'00.3063"	-0°00'00.1806"	-0.67
			ΔHt.	-0.443m	0.010m	-0.005m	-0.62
			Dist.	2492.112m	0.004m	-0.001m	-0.22
B398	CP1074	Y 530	**Az.**	199°27'51.5413"	0°00'00.1198"	0°00'00.0455"	0.51
			ΔHt.	-1.004m	0.017m	-0.007m	-0.67
			Dist.	11217.566m	0.005m	-0.001m	-0.43
B65	S 2 27	CP1145	**Az.**	215°52'29.5979"	0°00'00.3515"	0°00'00.5320"	0.67
			ΔHt.	-1.072m	0.012m	0.001m	0.16
			Dist.	2426.820m	0.003m	0.000m	-0.05
B142	CP1157	CP1222	**Az.**	198°18'41.0877"	0°00'00.1591"	-0°00'00.2529"	-0.67
			ΔHt.	1.158m	0.014m	0.001m	0.03
			Dist.	7029.918m	0.005m	0.002m	0.30

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2310	CP1130	CP5125	**Az.**	109°40'41.8732"	0°00'00.1190"	0°00'00.0063"	0.05
			ΔHt.	4.582m	0.014m	-0.009m	-0.67
			Dist.	10660.174m	0.007m	0.000m	0.00
B1491	CP1210	CP1243	**Az.**	158°26'47.0447"	0°00'00.1020"	0°00'00.0962"	0.65
			ΔHt.	0.270m	0.007m	-0.006m	-0.67
			Dist.	6845.194m	0.003m	-0.001m	-0.41
B425	CP1078	CP1077	**Az.**	172°18'08.5479"	0°00'00.4136"	0°00'00.0324"	0.34
			ΔHt.	0.130m	0.008m	0.001m	0.67
			Dist.	1633.013m	0.004m	-0.001m	-0.65
B843	CP1232	CP1233	**Az.**	39°50'34.0101"	0°00'00.3458"	-0°00'00.0973"	-0.31
			ΔHt.	1.345m	0.026m	0.011m	0.67
			Dist.	5552.125m	0.007m	0.001m	0.20
B474	FDEM-BC1	CP1070	**Az.**	338°36'29.4192"	0°00'00.1505"	0°00'00.0364"	0.24
			ΔHt.	2.487m	0.036m	-0.005m	-0.14
			Dist.	15979.476m	0.012m	-0.006m	-0.67
B2041	FLGPS 57	CP5148	**Az.**	66°20'01.7604"	0°00'00.4414"	-0°00'00.3538"	-0.35
			ΔHt.	-0.093m	0.008m	0.012m	0.65
			Dist.	1607.457m	0.003m	0.004m	0.67
B544	CP1084	CP1086	**Az.**	324°21'48.9393"	0°00'00.7456"	-0°00'00.3309"	-0.66
			ΔHt.	-0.061m	0.016m	0.001m	0.06
			Dist.	2405.846m	0.006m	0.001m	0.34
B2308	CP5185	CP5181	**Az.**	138°01'31.7746"	0°00'00.4548"	-0°00'00.1279"	-0.36
			ΔHt.	-0.740m	0.009m	0.005m	0.66
			Dist.	1494.778m	0.005m	0.003m	0.62
B1528	CP1213	CP1254	**Az.**	163°14'08.2687"	0°00'00.1933"	-0°00'00.0647"	-0.66
			ΔHt.	-0.578m	0.015m	0.000m	-0.06
			Dist.	5968.483m	0.005m	0.001m	0.56
B2224	CP5216	CP5219	**Az.**	308°06'02.9109"	0°00'00.9132"	0°00'00.3142"	0.48
			ΔHt.	0.421m	0.010m	-0.004m	-0.66
			Dist.	1224.893m	0.004m	0.000m	-0.05
B27	CP1241	CP1144	**Az.**	276°47'35.7247"	0°00'00.0892"	0°00'00.1348"	0.43
			ΔHt.	1.210m	0.012m	-0.020m	-0.45
			Dist.	8243.330m	0.004m	-0.007m	-0.66
B1408	CP1125	CP1009	**Az.**	61°41'02.7864"	0°00'00.3185"	0°00'00.0206"	0.14
			ΔHt.	2.538m	0.012m	-0.002m	-0.47
			Dist.	3078.480m	0.004m	-0.001m	-0.66

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B196	CP1153	CP1152	**Az.**	122°49'14.7381"	0°00'00.3813"	-0°00'00.1686"	-0.66
			ΔHt.	-2.000m	0.010m	-0.003m	-0.47
			Dist.	2478.126m	0.005m	0.002m	0.56
B1756	CP1028	CP1194	**Az.**	215°09'47.2908"	0°00'00.1234"	-0°00'00.0035"	-0.04
			ΔHt.	-2.424m	0.010m	-0.004m	-0.56
			Dist.	6971.864m	0.004m	-0.002m	-0.66
B2256	CP1119	CP5228	**Az.**	66°26'29.9225"	0°00'02.2147"	0°00'02.3838"	0.66
			ΔHt.	-0.145m	0.018m	0.022m	0.63
			Dist.	606.476m	0.004m	-0.001m	-0.41
B1072	A 518	CP1106	**Az.**	108°16'04.4094"	0°00'00.0522"	-0°00'00.0151"	-0.66
			ΔHt.	-31.052m	0.008m	-0.001m	-0.34
			Dist.	10236.571m	0.003m	0.001m	0.42
B2344	CP5300	CP5341	**Az.**	199°56'28.9883"	0°00'00.1026"	-0°00'00.0306"	-0.55
			ΔHt.	-1.141m	0.046m	-0.015m	-0.58
			Dist.	23025.068m	0.011m	-0.004m	-0.66
B1982	CP1141	CP5104	**Az.**	138°45'36.6841"	0°00'00.1857"	-0°00'00.0022"	-0.02
			ΔHt.	-0.469m	0.007m	-0.001m	-0.19
			Dist.	2455.019m	0.003m	-0.001m	-0.65
B1233	CP1130	CP1016	**Az.**	44°33'20.7358"	0°00'00.1675"	0°00'00.1103"	0.55
			ΔHt.	3.725m	0.012m	-0.008m	-0.55
			Dist.	5237.175m	0.005m	-0.004m	-0.65
B1636	CP1044	CP1043	**Az.**	86°51'11.9475"	0°00'00.2051"	-0°00'00.0436"	-0.47
			ΔHt.	0.283m	0.006m	0.000m	-0.12
			Dist.	2242.352m	0.003m	-0.001m	-0.65
B1187	CP1187	CP1184	**Az.**	132°52'30.2692"	0°00'00.3244"	-0°00'00.0908"	-0.22
			ΔHt.	0.940m	0.022m	0.000m	-0.01
			Dist.	5089.588m	0.008m	-0.007m	-0.65
B2314	CP5125	CP5124	**Az.**	324°54'15.3561"	0°00'00.1605"	0°00'00.0202"	0.19
			ΔHt.	-0.618m	0.014m	0.000m	0.04
			Dist.	6309.150m	0.008m	0.004m	0.65
B2263	CP5216	CP5217	**Az.**	327°17'07.2819"	0°00'01.3298"	0°00'00.3392"	0.41
			ΔHt.	0.351m	0.010m	-0.003m	-0.64
			Dist.	892.891m	0.004m	0.000m	0.11
B82	CP1234	CP1192	**Az.**	323°36'03.6563"	0°00'00.1465"	-0°00'00.0672"	-0.54
			ΔHt.	-1.684m	0.013m	0.001m	0.13
			Dist.	8219.501m	0.005m	0.002m	0.64

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B942	A 524	CP1165	**Az.**	358°49'56.3212"	0°00'00.2525"	-0°00'00.0651"	-0.52
			ΔHt.	-3.040m	0.006m	0.002m	0.52
			Dist.	2633.664m	0.003m	0.001m	0.64
B1513	CP1209	CP1258	**Az.**	329°20'36.8587"	0°00'00.1413"	0°00'00.1541"	0.54
			ΔHt.	-0.928m	0.012m	-0.004m	-0.16
			Dist.	6530.177m	0.006m	0.017m	0.64
B2068	CP1172	CP5154	**Az.**	68°37'38.8482"	0°00'00.4333"	0°00'00.5747"	0.64
			ΔHt.	0.025m	0.010m	0.002m	0.13
			Dist.	2033.700m	0.003m	0.003m	0.55
B583	CP1240	CP1210	**Az.**	273°26'50.0386"	0°00'00.0561"	-0°00'00.1705"	-0.58
			ΔHt.	-0.900m	0.008m	-0.031m	-0.64
			Dist.	10048.000m	0.004m	-0.001m	-0.06
B1244	CP1131	L 048	**Az.**	334°32'55.9947"	0°00'00.4635"	-0°00'00.1878"	-0.49
			ΔHt.	4.091m	0.011m	-0.004m	-0.64
			Dist.	2291.822m	0.004m	0.001m	0.45
B1957	CP5101	CP5103	**Az.**	10°50'18.0932"	0°00'01.3066"	-0°00'01.0443"	-0.64
			ΔHt.	0.234m	0.009m	-0.006m	-0.48
			Dist.	622.825m	0.003m	-0.002m	-0.55
B2026	CP1160	CP5142	**Az.**	301°24'38.3869"	0°00'00.4755"	0°00'00.1327"	0.49
			ΔHt.	1.308m	0.008m	0.002m	0.52
			Dist.	1360.894m	0.003m	0.001m	0.63
B859	A 524	CP1092	**Az.**	241°55'39.8428"	0°00'00.1940"	0°00'00.0200"	0.14
			ΔHt.	-4.203m	0.016m	-0.008m	-0.63
			Dist.	5760.610m	0.005m	0.002m	0.46
B2230	CP5212	CP5210	**Az.**	147°39'23.2782"	0°00'01.5498"	-0°00'00.0947"	-0.13
			ΔHt.	-0.735m	0.019m	0.006m	0.63
			Dist.	905.042m	0.006m	0.000m	0.14
B1419	CP1016	CP1015	**Az.**	307°47'39.5785"	0°00'00.5123"	0°00'00.2661"	0.63
			ΔHt.	0.078m	0.023m	-0.010m	-0.38
			Dist.	2266.001m	0.011m	0.000m	0.03
B2412	CP5328	CP5329	**Az.**	271°57'58.5152"	0°00'00.3745"	-0°00'00.0634"	-0.30
			ΔHt.	-0.125m	0.025m	0.002m	0.09
			Dist.	4124.715m	0.008m	-0.004m	-0.63
B1173	CP1116	CP1117	**Az.**	87°23'43.5845"	0°00'00.4431"	0°00'00.3913"	0.63
			ΔHt.	0.429m	0.024m	0.006m	0.36
			Dist.	3887.361m	0.008m	-0.005m	-0.40

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1781	CP1026	CP1027	**Az.**	158°26'52.1651"	0°00'00.6650"	0°00'00.2949"	0.19
			ΔHt.	-0.051m	0.013m	0.015m	0.63
			Dist.	1821.307m	0.005m	-0.002m	-0.21
B68	CP1193	700-93-06-B08	**Az.**	60°34'57.5590"	0°00'00.1806"	-0°00'00.0192"	-0.43
			ΔHt.	-0.822m	0.008m	0.001m	0.63
			Dist.	3409.036m	0.004m	0.000m	0.05
B867	CP1099	CP1097	**Az.**	233°14'03.1765"	0°00'00.1870"	0°00'00.0679"	0.63
			ΔHt.	1.463m	0.009m	-0.001m	-0.25
			Dist.	3768.930m	0.003m	0.000m	-0.12
B227	CP1151	CP1303-PA1	**Az.**	164°38'32.9762"	0°00'00.3000"	0°00'00.1664"	0.63
			ΔHt.	-1.888m	0.010m	0.004m	0.60
			Dist.	3116.423m	0.004m	0.000m	0.03
B2429	CP5317	CP5328	**Az.**	310°03'53.0939"	0°00'00.0856"	0°00'00.0164"	0.28
			ΔHt.	1.758m	0.021m	0.005m	0.31
			Dist.	17409.951m	0.007m	-0.003m	-0.62
B1938	CP5106	CP5114A	**Az.**	22°37'44.8147"	0°00'01.2356"	-0°00'00.6860"	-0.62
			ΔHt.	0.552m	0.010m	-0.005m	-0.61
			Dist.	666.279m	0.004m	-0.001m	-0.21
B1221	S 191 W	CP1126	**Az.**	123°25'34.7277"	0°00'00.1531"	-0°00'00.1064"	-0.62
			ΔHt.	-6.450m	0.014m	-0.005m	-0.36
			Dist.	5625.729m	0.005m	0.002m	0.38
B769	CP1212	CP1237	**Az.**	90°43'16.0118"	0°00'00.0587"	-0°00'00.0352"	-0.62
			ΔHt.	-1.232m	0.011m	-0.005m	-0.54
			Dist.	14915.365m	0.005m	-0.002m	-0.59
B1525	CP1210	CP1064	**Az.**	218°59'32.9891"	0°00'00.0683"	-0°00'00.0322"	-0.44
			ΔHt.	-0.647m	0.006m	-0.003m	-0.55
			Dist.	7847.525m	0.003m	-0.002m	-0.62
B2397	CP5315	CP5318	**Az.**	333°50'28.6777"	0°00'00.2781"	0°00'00.0359"	0.41
			ΔHt.	0.601m	0.020m	0.002m	0.24
			Dist.	6182.387m	0.012m	-0.003m	-0.62
B508	CP1068	CP1069	**Az.**	346°06'23.0222"	0°00'00.5499"	-0°00'00.2158"	-0.62
			ΔHt.	0.515m	0.021m	0.002m	0.12
			Dist.	3261.340m	0.011m	0.006m	0.54
B1411	CP1189	CP1130	**Az.**	268°10'25.6178"	0°00'00.1108"	0°00'00.0062"	0.06
			ΔHt.	-3.031m	0.006m	-0.004m	-0.62
			Dist.	4819.568m	0.003m	-0.001m	-0.47

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2049	CP5152	CP5154	**Az.**	67°33'23.6207"	0°00'00.4016"	-0°00'00.2306"	-0.62
			ΔHt.	0.097m	0.011m	0.003m	0.25
			Dist.	2296.588m	0.004m	0.000m	-0.09
B1919	CP1234	CP3002	**Az.**	277°56'15.7564"	0°00'00.1173"	0°00'00.0323"	0.11
			ΔHt.	-1.874m	0.018m	-0.064m	-0.42
			Dist.	9783.306m	0.007m	0.023m	0.62
B1071	C 358	CP1112	**Az.**	179°08'07.6677"	0°00'00.1416"	0°00'00.0695"	0.59
			ΔHt.	-2.040m	0.023m	0.005m	0.28
			Dist.	10571.774m	0.007m	0.003m	0.62
B1534	CP1257	CP1261	**Az.**	293°43'23.0530"	0°00'00.1134"	-0°00'00.0267"	-0.49
			ΔHt.	0.122m	0.017m	-0.002m	-0.20
			Dist.	6241.813m	0.003m	-0.001m	-0.62
B2343	CP1188	CP1014	**Az.**	121°49'00.2412"	0°00'00.2811"	-0°00'00.0814"	-0.29
			ΔHt.	1.572m	0.014m	-0.005m	-0.56
			Dist.	3729.525m	0.005m	0.002m	0.62
B1002	A 524	CP1164	**Az.**	274°13'57.9568"	0°00'05.1650"	0°00'00.2633"	0.28
			ΔHt.	-5.090m	0.004m	0.000m	0.46
			Dist.	68.016m	0.002m	0.000m	0.62
B2067	CP1173	CP5154	**Az.**	48°29'24.1684"	0°00'14.5064"	0°00'04.1664"	0.62
			ΔHt.	-0.035m	0.006m	0.000m	0.07
			Dist.	55.469m	0.002m	0.000m	-0.33
B2	CP1143	CP1141	**Az.**	33°02'07.0924"	0°00'00.1340"	-0°00'00.0428"	-0.37
			ΔHt.	-0.145m	0.006m	-0.003m	-0.61
			Dist.	3282.419m	0.002m	0.001m	0.42
B1770	CP1029	CP1248	**Az.**	140°34'25.7575"	0°00'00.1004"	-0°00'00.0455"	-0.45
			ΔHt.	-0.726m	0.006m	-0.004m	-0.61
			Dist.	5236.553m	0.003m	0.001m	0.53
B881	CP1166	CP1225	**Az.**	283°10'04.5596"	0°00'00.1870"	-0°00'00.0323"	-0.24
			ΔHt.	3.251m	0.012m	0.006m	0.61
			Dist.	6506.818m	0.005m	0.002m	0.59
B680	CP1202	CP1055	**Az.**	140°29'05.3755"	0°00'00.0974"	-0°00'00.0420"	-0.54
			ΔHt.	2.480m	0.013m	-0.006m	-0.61
			Dist.	8331.283m	0.004m	0.002m	0.61
B2190	CP5170	CP5171	**Az.**	339°58'03.0314"	0°00'03.5231"	-0°00'00.0739"	-0.05
			ΔHt.	0.967m	0.011m	-0.003m	-0.61
			Dist.	172.027m	0.005m	0.000m	-0.03

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2269	CP5210	CP5207	**Az.**	140°14'57.3769"	0°00'00.7121"	0°00'00.0327"	0.06
			ΔHt.	-0.673m	0.011m	0.005m	0.61
			Dist.	919.431m	0.004m	0.002m	0.55
B1242	CP1129	CP1128	**Az.**	318°18'47.8017"	0°00'00.3692"	-0°00'00.0696"	-0.61
			ΔHt.	-0.326m	0.021m	-0.003m	-0.53
			Dist.	3345.020m	0.009m	0.001m	0.37
B2373	CP1203	CP5302	**Az.**	76°00'48.1827"	0°00'00.1419"	-0°00'00.0715"	-0.61
			ΔHt.	-1.114m	0.022m	-0.009m	-0.36
			Dist.	10763.025m	0.010m	0.002m	0.21
B1404	CP1134	CP1190	**Az.**	16°15'51.7406"	0°00'00.1307"	0°00'00.0500"	0.56
			ΔHt.	-0.140m	0.005m	-0.001m	-0.48
			Dist.	3398.860m	0.002m	0.001m	0.61
B2433	CP5320	CP5324	**Az.**	336°51'20.5084"	0°00'00.9886"	-0°00'00.9500"	-0.43
			ΔHt.	-0.183m	0.041m	-0.055m	-0.61
			Dist.	2287.280m	0.017m	-0.033m	-0.55
B1415	CP1120	CP1122	**Az.**	176°54'46.3381"	0°00'00.1952"	0°00'00.0404"	0.10
			ΔHt.	-2.923m	0.015m	0.017m	0.61
			Dist.	5678.118m	0.006m	0.002m	0.14
B1978	CP5118	CP5111	**Az.**	18°02'54.8670"	0°00'00.3412"	-0°00'00.1788"	-0.30
			ΔHt.	-0.397m	0.012m	-0.005m	-0.19
			Dist.	2263.876m	0.004m	0.004m	0.60
B2455	CP5313	CP5304	**Az.**	122°25'18.5782"	0°00'00.0875"	0°00'00.0385"	0.60
			ΔHt.	-1.536m	0.010m	-0.003m	-0.38
			Dist.	8134.245m	0.004m	-0.001m	-0.43
B629	CP1205	CP1203	**Az.**	145°03'02.4733"	0°00'00.0740"	-0°00'00.0262"	-0.60
			ΔHt.	0.122m	0.010m	0.003m	0.45
			Dist.	9805.027m	0.004m	-0.001m	-0.40
B313	CP1158	CP1159	**Az.**	282°23'24.9129"	0°00'00.4020"	0°00'00.2407"	0.60
			ΔHt.	0.735m	0.017m	-0.001m	-0.06
			Dist.	3265.772m	0.005m	0.000m	-0.11
B1340	C T2	CP1006	**Az.**	243°19'04.2309"	0°00'00.0823"	0°00'00.0396"	0.41
			ΔHt.	0.724m	0.029m	0.008m	0.30
			Dist.	18188.253m	0.007m	0.005m	0.60
B2191	CP5170	CP5172	**Az.**	7°58'20.1128"	0°00'01.8467"	0°00'00.0170"	0.02
			ΔHt.	1.409m	0.011m	-0.003m	-0.60
			Dist.	325.608m	0.005m	0.000m	-0.14

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B356	CP1076	CP1220	**Az.**	101°49'52.6228"	0°00'00.0929"	-0°00'00.0179"	-0.13
			ΔHt.	-2.028m	0.010m	0.006m	0.60
			Dist.	8995.965m	0.004m	0.000m	0.08
B2063	CP1171	CP5150	**Az.**	37°04'28.6943"	0°00'00.9731"	0°00'00.3329"	0.60
			ΔHt.	-0.048m	0.014m	-0.002m	-0.26
			Dist.	870.619m	0.005m	-0.001m	-0.35
B2071	CP5145	CP5147	**Az.**	51°23'18.5653"	0°00'00.4614"	-0°00'00.1404"	-0.60
			ΔHt.	0.190m	0.008m	0.002m	0.51
			Dist.	1722.566m	0.003m	0.001m	0.35
B1824	CP1039	MF 41	**Az.**	128°45'28.6081"	0°00'00.3067"	0°00'00.1861"	0.60
			ΔHt.	1.647m	0.010m	-0.004m	-0.41
			Dist.	3477.171m	0.004m	0.002m	0.44
B1820	CP1031	FLGPS 67	**Az.**	40°00'14.2964"	0°00'00.1569"	0°00'00.0964"	0.60
			ΔHt.	-0.269m	0.015m	0.000m	-0.04
			Dist.	7352.331m	0.006m	0.002m	0.35
B378	Y 530	CP1070	**Az.**	88°59'44.4973"	0°00'00.2825"	-0°00'00.1742"	-0.60
			ΔHt.	0.734m	0.037m	0.002m	0.05
			Dist.	7628.427m	0.013m	0.002m	0.11
B393	CP1083	CP1082	**Az.**	187°12'49.2952"	0°00'00.3497"	-0°00'00.0368"	-0.17
			ΔHt.	1.609m	0.010m	-0.004m	-0.59
			Dist.	2833.624m	0.005m	-0.001m	-0.20
B1180	A 518	CP1105	**Az.**	124°51'48.9000"	0°00'00.0580"	-0°00'00.0037"	-0.10
			ΔHt.	-31.630m	0.008m	0.002m	0.50
			Dist.	9800.165m	0.003m	0.001m	0.59
B2245	CP5200	CP5197	**Az.**	207°09'18.4994"	0°00'00.9404"	-0°00'00.4227"	-0.59
			ΔHt.	0.341m	0.008m	-0.001m	-0.11
			Dist.	961.652m	0.004m	0.000m	-0.04
B2395	CP5328	CP5330	**Az.**	286°10'12.7830"	0°00'00.1614"	-0°00'00.0310"	-0.33
			ΔHt.	2.184m	0.026m	-0.010m	-0.59
			Dist.	13634.092m	0.009m	-0.002m	-0.35
B591	CP1210	CP1066	**Az.**	251°53'42.1926"	0°00'00.0748"	0°00'00.0107"	0.16
			ΔHt.	2.471m	0.011m	0.006m	0.59
			Dist.	9249.865m	0.004m	-0.002m	-0.53
B185	CP1305-PA1	CP1152	**Az.**	64°32'56.2026"	0°00'00.3026"	0°00'00.1354"	0.54
			ΔHt.	0.017m	0.009m	0.004m	0.59
			Dist.	2683.616m	0.005m	0.002m	0.56

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B936	CP1229	CP1170	**Az.**	157°46'53.1674"	0°00'00.1126"	-0°00'00.0379"	-0.25
			ΔHt.	-2.066m	0.008m	0.006m	0.58
			Dist.	5889.246m	0.003m	-0.001m	-0.28
B561	CP1058	CP1061	**Az.**	258°34'12.6426"	0°00'00.2285"	0°00'00.0428"	0.58
			ΔHt.	-1.122m	0.024m	0.000m	-0.01
			Dist.	8341.668m	0.012m	0.002m	0.46
B2369	CP5316	CP5334	**Az.**	98°02'01.1703"	0°00'00.4379"	-0°00'00.4340"	-0.58
			ΔHt.	-1.267m	0.038m	0.044m	0.58
			Dist.	8137.600m	0.012m	-0.006m	-0.43
B2135	CP1039	CP5123	**Az.**	80°30'29.0231"	0°00'00.3735"	0°00'00.0937"	0.39
			ΔHt.	-0.137m	0.046m	-0.006m	-0.18
			Dist.	6989.509m	0.010m	-0.004m	-0.58
B164	CP1211	CP1149	**Az.**	23°48'44.5012"	0°00'00.0971"	0°00'00.0024"	0.03
			ΔHt.	0.399m	0.008m	0.004m	0.58
			Dist.	7052.348m	0.003m	0.001m	0.20
B2365	CP5300	CP5343	**Az.**	183°52'09.5386"	0°00'00.2043"	0°00'00.0139"	0.12
			ΔHt.	-0.615m	0.048m	-0.003m	-0.10
			Dist.	11995.957m	0.012m	0.004m	0.58
B1998	CP5134	CP5131	**Az.**	25°01'33.1260"	0°00'01.0512"	-0°00'00.1131"	-0.21
			ΔHt.	-0.916m	0.008m	-0.003m	-0.58
			Dist.	589.094m	0.002m	0.000m	0.40
B2019	CP5131	CP5133	**Az.**	82°44'27.0685"	0°00'01.1093"	-0°00'00.3518"	-0.58
			ΔHt.	-0.076m	0.010m	-0.003m	-0.48
			Dist.	698.579m	0.004m	-0.001m	-0.35
B213	CP1154	CP1155	**Az.**	347°49'30.4444"	0°00'00.7636"	0°00'00.0353"	0.14
			ΔHt.	0.347m	0.017m	0.003m	0.38
			Dist.	2078.872m	0.008m	-0.001m	-0.57
B2003	CP5131	CP5137	**Az.**	20°47'56.8345"	0°00'00.3021"	-0°00'00.0631"	-0.30
			ΔHt.	-1.171m	0.010m	-0.004m	-0.51
			Dist.	3223.680m	0.003m	0.001m	0.57
B1045	CP1229	CP1172	**Az.**	125°48'19.5372"	0°00'00.1100"	0°00'00.0620"	0.57
			ΔHt.	-2.012m	0.008m	0.000m	0.04
			Dist.	6518.891m	0.003m	0.000m	-0.13
B2131	CP1048	CP5120	**Az.**	214°49'35.8677"	0°00'00.1976"	-0°00'00.0484"	-0.57
			ΔHt.	-1.411m	0.007m	0.001m	0.31
			Dist.	3046.483m	0.002m	0.000m	0.06

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2403	CP5314	CP5321	**Az.**	345°34'21.3384"	0°00'00.3185"	0°00'00.0692"	0.57
			ΔHt.	-0.650m	0.011m	-0.001m	-0.33
			Dist.	3007.898m	0.004m	0.001m	0.45
B418	CP1083	CP1081	**Az.**	137°51'15.5349"	0°00'00.3079"	-0°00'00.1792"	-0.57
			ΔHt.	1.018m	0.011m	-0.004m	-0.41
			Dist.	3700.830m	0.004m	0.000m	0.09
B2046	CP1171	CP5152	**Az.**	36°28'53.8097"	0°00'00.3078"	0°00'00.2143"	0.56
			ΔHt.	-0.101m	0.008m	-0.003m	-0.23
			Dist.	1872.208m	0.003m	-0.001m	-0.35
B2337	CP5185	CP5184	**Az.**	211°54'44.0346"	0°00'01.3383"	-0°00'00.3748"	-0.30
			ΔHt.	-0.652m	0.010m	0.005m	0.56
			Dist.	829.248m	0.004m	0.000m	0.06
B2330	CP5185	CP5183	**Az.**	118°58'30.3879"	0°00'00.7658"	0°00'00.0240"	0.05
			ΔHt.	-0.006m	0.009m	0.000m	-0.05
			Dist.	879.143m	0.005m	0.002m	0.56
B2204	CP5188	CP5185	**Az.**	225°06'32.6861"	0°00'00.6719"	-0°00'00.2461"	-0.56
			ΔHt.	-1.336m	0.010m	0.000m	-0.01
			Dist.	1457.457m	0.003m	0.000m	0.02
B2458	CP5303	CP5304	**Az.**	208°47'11.6482"	0°00'00.4927"	0°00'00.0664"	0.35
			ΔHt.	0.214m	0.009m	0.002m	0.56
			Dist.	1242.144m	0.003m	0.000m	0.09
B2072	CP1170	CP5149	**Az.**	101°06'50.3263"	0°00'01.3353"	-0°00'00.2978"	-0.36
			ΔHt.	0.549m	0.016m	0.018m	0.55
			Dist.	1129.361m	0.007m	0.006m	0.45
B1483	CP1210	CP1252	**Az.**	123°29'45.6301"	0°00'00.1682"	0°00'00.0300"	0.55
			ΔHt.	-1.019m	0.005m	0.000m	0.08
			Dist.	2963.884m	0.003m	0.000m	-0.09
B585	CP1061	CORNER AZ	**Az.**	310°35'46.4837"	0°00'01.0284"	-0°00'00.1213"	-0.12
			ΔHt.	3.574m	0.026m	0.000m	0.01
			Dist.	2194.344m	0.012m	0.008m	0.55
B2164	CP5157	CP5156	**Az.**	201°27'05.9542"	0°00'00.4042"	0°00'00.0065"	0.04
			ΔHt.	-0.468m	0.008m	0.000m	-0.10
			Dist.	1498.877m	0.002m	0.000m	0.55
B2222	CP5219	CP5217	**Az.**	90°32'18.9401"	0°00'01.5180"	0°00'00.1931"	0.30
			ΔHt.	-0.070m	0.007m	0.001m	0.55
			Dist.	481.354m	0.003m	0.000m	0.08

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1536	CP1255	CP1261	**Az.**	139°53'58.8109"	0°00'00.1196"	-0°00'00.0011"	-0.03
			ΔHt.	-0.024m	0.016m	0.005m	0.55
			Dist.	5093.798m	0.003m	-0.001m	-0.45
B2028	CP5131	CP5132	**Az.**	279°30'48.6552"	0°00'00.6056"	-0°00'00.1180"	-0.35
			ΔHt.	0.084m	0.008m	0.003m	0.55
			Dist.	756.832m	0.003m	0.000m	-0.25
B64	CP1193	CP1138	**Az.**	284°36'18.5976"	0°00'00.1711"	-0°00'00.0096"	-0.09
			ΔHt.	6.337m	0.012m	0.003m	0.55
			Dist.	5491.629m	0.005m	0.000m	0.11
B1784	CP1192	CP1206	**Az.**	76°25'11.0628"	0°00'00.1442"	0°00'00.0565"	0.55
			ΔHt.	0.912m	0.018m	0.001m	0.05
			Dist.	8221.194m	0.007m	0.002m	0.39
B2159	CP1180	CP5157	**Az.**	58°05'18.1051"	0°00'00.1857"	-0°00'00.0030"	-0.04
			ΔHt.	-0.510m	0.008m	0.000m	0.05
			Dist.	2917.613m	0.002m	0.001m	0.55
B2242	CP1120	CP5200	**Az.**	110°00'14.3269"	0°00'02.0021"	-0°00'00.3119"	-0.32
			ΔHt.	-0.465m	0.008m	0.001m	0.32
			Dist.	344.669m	0.003m	0.001m	0.55
B180	CP1150	CP1214	**Az.**	232°52'31.1693"	0°00'00.1189"	-0°00'00.0811"	-0.55
			ΔHt.	-0.047m	0.014m	0.005m	0.33
			Dist.	8216.977m	0.005m	-0.001m	-0.13
B2216	CP5224	CP5223	**Az.**	0°24'24.9040"	0°00'00.3844"	0°00'00.2051"	0.54
			ΔHt.	0.353m	0.010m	0.002m	0.26
			Dist.	1469.968m	0.003m	0.001m	0.25
B1680	CP1248	CP1246	**Az.**	93°37'21.4562"	0°00'00.2083"	-0°00'00.4295"	-0.50
			ΔHt.	-0.759m	0.022m	-0.028m	-0.54
			Dist.	7226.243m	0.007m	0.004m	0.21
B2247	CP5197	CP5196	**Az.**	78°12'45.9969"	0°00'01.0487"	-0°00'00.0908"	-0.19
			ΔHt.	-0.776m	0.010m	-0.001m	-0.12
			Dist.	578.824m	0.003m	0.001m	0.54
B2023	CP5139	CP5138	**Az.**	117°31'06.0709"	0°00'02.1775"	0°00'00.3945"	0.54
			ΔHt.	-0.568m	0.015m	0.002m	0.35
			Dist.	607.238m	0.005m	0.000m	0.06
B1453	CP1004	CP1005	**Az.**	132°01'49.7718"	0°00'01.0714"	0°00'00.2103"	0.46
			ΔHt.	-0.049m	0.035m	0.006m	0.39
			Dist.	2045.634m	0.013m	-0.003m	-0.54

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2324	CP1122	CP1185	**Az.**	252°52'24.1798"	0°00'00.4584"	-0°00'00.0774"	-0.22
			ΔHt.	0.565m	0.009m	0.003m	0.54
			Dist.	1805.262m	0.003m	0.001m	0.36
B2132	CP1049	CP5120	**Az.**	154°24'15.6521"	0°00'00.1678"	0°00'00.0413"	0.29
			ΔHt.	-3.498m	0.008m	-0.003m	-0.37
			Dist.	3466.805m	0.003m	-0.001m	-0.54
B1133	CP1108	CP1110	**Az.**	98°19'26.0618"	0°00'00.1715"	-0°00'00.0749"	-0.54
			ΔHt.	-0.802m	0.016m	-0.004m	-0.37
			Dist.	8054.197m	0.006m	0.001m	0.12
B615	CP1201	Y 555	**Az.**	56°23'44.0394"	0°00'00.1635"	0°00'00.0191"	0.23
			ΔHt.	-1.123m	0.015m	-0.003m	-0.47
			Dist.	7466.122m	0.006m	0.002m	0.53
B2290	CP5218	CP5216	**Az.**	88°20'54.8982"	0°00'02.0023"	-0°00'00.4488"	-0.34
			ΔHt.	-0.059m	0.011m	-0.002m	-0.21
			Dist.	479.475m	0.006m	0.003m	0.53
B1526	CP1208	CP1256	**Az.**	296°40'57.1135"	0°00'00.2464"	-0°00'01.0302"	-0.53
			ΔHt.	-0.286m	0.023m	0.017m	0.43
			Dist.	5464.642m	0.006m	-0.016m	-0.49
B1547	CP1063	Y 535	**Az.**	234°14'21.1089"	0°00'00.1492"	0°00'00.0483"	0.53
			ΔHt.	0.088m	0.009m	-0.001m	-0.17
			Dist.	3827.123m	0.003m	0.001m	0.43
B2302	CP5182	CP5181	**Az.**	174°05'06.5378"	0°00'01.4040"	-0°00'00.4668"	-0.53
			ΔHt.	-0.453m	0.008m	0.001m	0.15
			Dist.	562.523m	0.004m	0.001m	0.43
B924	CP1094	CP1093	**Az.**	75°34'59.0806"	0°00'00.3140"	0°00'00.0485"	0.26
			ΔHt.	-3.093m	0.016m	-0.005m	-0.53
			Dist.	4168.872m	0.006m	-0.001m	-0.18
B2259	CP5223	CP5226	**Az.**	248°16'37.4311"	0°00'00.5308"	-0°00'00.0710"	-0.24
			ΔHt.	-0.747m	0.016m	-0.005m	-0.53
			Dist.	1629.530m	0.004m	0.000m	0.11
B2189	CP5168	CP5170	**Az.**	43°28'37.4336"	0°00'01.5852"	0°00'00.0869"	0.11
			ΔHt.	-0.315m	0.010m	-0.003m	-0.53
			Dist.	504.461m	0.003m	-0.001m	-0.31
B2382	CP1203	CP5336	**Az.**	267°58'35.3088"	0°00'00.1141"	-0°00'00.0102"	-0.15
			ΔHt.	-0.141m	0.014m	0.004m	0.37
			Dist.	7827.414m	0.005m	-0.002m	-0.53

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2375	CP1012	CP1014	**Az.**	167°38'18.1198"	0°00'00.2571"	0°00'00.1080"	0.53
			ΔHt.	0.119m	0.015m	-0.001m	-0.09
			Dist.	4435.529m	0.006m	0.000m	-0.08
B2002	CP5137	CP1305	**Az.**	153°10'06.5290"	0°00'00.2127"	-0°00'00.1802"	-0.53
			ΔHt.	0.728m	0.008m	0.003m	0.21
			Dist.	2905.162m	0.004m	-0.003m	-0.42
B1107	CP1107	CP1106	**Az.**	327°15'37.3402"	0°00'00.1498"	-0°00'00.0564"	-0.53
			ΔHt.	0.192m	0.009m	0.001m	0.15
			Dist.	5401.274m	0.004m	0.001m	0.26
B2122	CP5121	CP5122	**Az.**	180°30'36.1657"	0°00'00.3977"	0°00'00.1272"	0.52
			ΔHt.	1.739m	0.025m	0.004m	0.25
			Dist.	7572.170m	0.021m	-0.007m	-0.51
B1140	CP1119	CP1120	**Az.**	90°11'31.6027"	0°00'00.2875"	0°00'00.0117"	0.08
			ΔHt.	-0.818m	0.012m	0.002m	0.21
			Dist.	3193.498m	0.004m	0.001m	0.52
B580	CP1207	CP1059	**Az.**	192°10'19.5282"	0°00'00.1551"	-0°00'00.0490"	-0.50
			ΔHt.	1.728m	0.018m	-0.006m	-0.52
			Dist.	9134.989m	0.006m	0.002m	0.49
B1433	CP1022	CP1134	**Az.**	272°53'09.6378"	0°00'00.1267"	-0°00'00.0515"	-0.52
			ΔHt.	-1.951m	0.012m	-0.003m	-0.33
			Dist.	6298.293m	0.004m	-0.001m	-0.23
B2312	CP1132	CP5125	**Az.**	86°23'45.2659"	0°00'00.1772"	-0°00'00.0802"	-0.51
			ΔHt.	4.030m	0.013m	0.004m	0.39
			Dist.	8492.270m	0.006m	-0.002m	-0.47
B2153	CP5158	CP5159	**Az.**	26°13'29.0571"	0°00'00.8100"	0°00'00.0639"	0.18
			ΔHt.	-0.388m	0.009m	-0.001m	-0.32
			Dist.	1176.359m	0.003m	0.001m	0.51
B2009	CP1159	CP5138	**Az.**	255°14'37.6970"	0°00'00.5104"	0°00'00.0714"	0.41
			ΔHt.	-1.249m	0.016m	-0.002m	-0.35
			Dist.	2764.852m	0.004m	-0.001m	-0.51
B219	CP1305-PA1	CP1301-PA1	**Az.**	144°26'09.6639"	0°00'00.1897"	-0°00'00.0230"	-0.27
			ΔHt.	-1.052m	0.009m	-0.002m	-0.37
			Dist.	3753.432m	0.003m	0.001m	0.51
B258	CP1155	CP1156	**Az.**	315°13'42.2847"	0°00'00.5032"	-0°00'00.0186"	-0.10
			ΔHt.	-0.612m	0.019m	-0.005m	-0.51
			Dist.	2356.377m	0.013m	0.001m	0.06

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2411	CP5329	CP5331	**Az.**	303°41'30.9695"	0°00'00.2240"	0°00'00.0558"	0.35
			ΔHt.	1.451m	0.023m	0.000m	-0.01
			Dist.	6773.646m	0.008m	-0.003m	-0.51
B509	CP1071	CP1070	**Az.**	162°15'20.2872"	0°00'00.8615"	-0°00'00.7760"	-0.51
			ΔHt.	0.272m	0.038m	0.012m	0.15
			Dist.	3156.532m	0.012m	0.003m	0.10
B2318	CP5182	CP5185	**Az.**	300°22'16.2602"	0°00'00.6481"	-0°00'00.0263"	-0.06
			ΔHt.	0.287m	0.010m	0.000m	-0.06
			Dist.	1091.435m	0.005m	0.002m	0.51
B2114	CP1048	CP5129	**Az.**	301°50'26.5664"	0°00'00.1356"	-0°00'00.0221"	-0.38
			ΔHt.	-0.546m	0.007m	0.001m	0.51
			Dist.	2833.210m	0.003m	-0.001m	-0.49
B2273	CP5203	CP5200	**Az.**	126°33'29.6800"	0°00'00.7951"	-0°00'00.1027"	-0.27
			ΔHt.	-0.693m	0.009m	0.002m	0.43
			Dist.	883.545m	0.004m	0.001m	0.50
B1884	CP1205	CP1203	**Az.**	145°03'02.4733"	0°00'00.0740"	0°00'00.0386"	0.41
			ΔHt.	0.122m	0.010m	-0.007m	-0.50
			Dist.	9805.027m	0.004m	0.000m	0.00
B2120	CP5123	CP5122	**Az.**	2°47'03.8934"	0°00'00.4415"	0°00'00.0037"	0.01
			ΔHt.	-0.338m	0.046m	-0.012m	-0.43
			Dist.	5030.927m	0.013m	-0.004m	-0.50
B1110	CP1113	CP1114	**Az.**	34°53'25.0969"	0°00'00.4592"	-0°00'00.0156"	-0.08
			ΔHt.	0.006m	0.020m	-0.002m	-0.28
			Dist.	4226.449m	0.006m	-0.001m	-0.50
B2022	CP5139	CP5141	**Az.**	12°22'54.2059"	0°00'00.7022"	0°00'00.0333"	0.15
			ΔHt.	0.075m	0.015m	-0.002m	-0.35
			Dist.	1256.188m	0.007m	0.001m	0.50
B2157	CP5160	CP5162	**Az.**	62°42'56.4279"	0°00'01.1874"	0°00'00.2868"	0.39
			ΔHt.	-0.539m	0.010m	0.000m	-0.03
			Dist.	661.331m	0.003m	0.001m	0.50
B2419	CP5320	CP5319	**Az.**	87°16'04.2636"	0°00'00.5554"	0°00'00.0666"	0.28
			ΔHt.	-0.394m	0.043m	-0.015m	-0.49
			Dist.	4909.305m	0.013m	0.005m	0.49
B2244	CP5199	CP5197	**Az.**	155°41'25.0469"	0°00'01.1003"	-0°00'00.2466"	-0.49
			ΔHt.	-0.243m	0.008m	0.000m	0.13
			Dist.	548.050m	0.005m	0.001m	0.43

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2421	CP3010	CP5317	**Az.**	156°57'41.9734"	0°00'00.0512"	0°00'00.0179"	0.49
			ΔHt.	-1.173m	0.022m	0.002m	0.15
			Dist.	24542.838m	0.008m	-0.001m	-0.13
B2065	CP5154	CP5153	**Az.**	248°23'29.5886"	0°00'00.6655"	-0°00'00.2769"	-0.49
			ΔHt.	-0.443m	0.012m	0.001m	0.11
			Dist.	1507.779m	0.004m	-0.001m	-0.32
B375	CP1076	CP1077	**Az.**	9°58'45.0421"	0°00'00.2662"	0°00'00.0341"	0.48
			ΔHt.	-0.781m	0.007m	0.000m	0.11
			Dist.	2116.447m	0.004m	0.000m	-0.49
B2430	CP5328	CP5331	**Az.**	291°47'30.1309"	0°00'00.1506"	0°00'00.0136"	0.14
			ΔHt.	1.326m	0.023m	-0.002m	-0.12
			Dist.	10507.861m	0.008m	0.002m	0.49
B2012	CP5143	CP5140	**Az.**	262°46'53.9684"	0°00'00.9579"	0°00'00.1449"	0.38
			ΔHt.	-0.724m	0.016m	0.003m	0.48
			Dist.	1034.538m	0.004m	0.001m	0.36
B2018	CP5133	CP1305	**Az.**	79°18'23.9323"	0°00'00.3874"	-0°00'00.0766"	-0.40
			ΔHt.	-0.367m	0.009m	-0.001m	-0.34
			Dist.	1794.438m	0.004m	-0.001m	-0.48
B1801	K 413	CP1239	**Az.**	343°04'29.0344"	0°00'00.0879"	-0°00'00.0700"	-0.20
			ΔHt.	0.845m	0.015m	0.017m	0.48
			Dist.	7623.593m	0.004m	-0.008m	-0.37
B379	CP1220	CP1073	**Az.**	211°20'51.9442"	0°00'00.1910"	-0°00'00.0922"	-0.48
			ΔHt.	1.473m	0.014m	-0.006m	-0.48
			Dist.	6215.810m	0.006m	0.001m	0.16
B1421	CP1019	CP1189	**Az.**	310°25'01.0792"	0°00'00.3161"	0°00'00.0434"	0.19
			ΔHt.	0.183m	0.010m	0.001m	0.20
			Dist.	2884.154m	0.004m	0.001m	0.48
B2001	CP5137	CP1305	**Az.**	153°10'06.5290"	0°00'00.2127"	0°00'00.0009"	0.01
			ΔHt.	0.728m	0.008m	-0.002m	-0.48
			Dist.	2905.162m	0.004m	0.000m	-0.28
B2432	CP5321	CP5320	**Az.**	59°17'31.7671"	0°00'00.4380"	-0°00'00.1367"	-0.48
			ΔHt.	0.504m	0.024m	0.004m	0.23
			Dist.	3173.272m	0.010m	0.002m	0.23
B1540	CP1261	CP1253	**Az.**	214°26'22.9111"	0°00'00.1084"	-0°00'00.0397"	-0.45
			ΔHt.	1.846m	0.013m	0.001m	0.17
			Dist.	10928.223m	0.005m	0.001m	0.48

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1885	CP1203	CP3005	**Az.**	325°02'54.5190"	0°00'00.2594"	0°00'00.0669"	0.48
			ΔHt.	0.119m	0.015m	0.001m	0.17
			Dist.	3973.985m	0.010m	0.000m	-0.05
B2033	CP5140	CP5141	**Az.**	244°10'21.3531"	0°00'01.2684"	0°00'00.2503"	0.48
			ΔHt.	0.058m	0.017m	0.003m	0.47
			Dist.	763.761m	0.005m	0.000m	0.22
B2261	CP5222	CP5221	**Az.**	0°21'56.9180"	0°00'02.3370"	0°00'00.7103"	0.47
			ΔHt.	0.680m	0.022m	0.004m	0.28
			Dist.	1045.366m	0.011m	-0.001m	-0.17
B484	CP1071	CP1217	**Az.**	103°35'19.2890"	0°00'00.2055"	0°00'00.0284"	0.10
			ΔHt.	-1.996m	0.028m	0.006m	0.10
			Dist.	8835.271m	0.012m	-0.013m	-0.47
B2213	CP5224	CP5223	**Az.**	0°24'24.9040"	0°00'00.3844"	-0°00'00.1042"	-0.47
			ΔHt.	0.353m	0.010m	-0.001m	-0.17
			Dist.	1469.968m	0.003m	0.000m	-0.15
B1127	CP1116	CP1115	**Az.**	223°44'07.8709"	0°00'00.4433"	-0°00'00.0678"	-0.30
			ΔHt.	0.782m	0.021m	-0.005m	-0.47
			Dist.	4153.897m	0.006m	-0.001m	-0.28
B2251	CP5194	CP5190	**Az.**	143°18'20.9156"	0°00'01.3439"	-0°00'00.5169"	-0.47
			ΔHt.	-0.491m	0.014m	0.005m	0.38
			Dist.	668.011m	0.003m	0.001m	0.31
B2177	CP5167	CP5168	**Az.**	18°16'48.3948"	0°00'01.2648"	0°00'00.0292"	0.04
			ΔHt.	-0.899m	0.010m	-0.003m	-0.47
			Dist.	593.367m	0.004m	-0.001m	-0.31
B1047	CP1231	CP1176	**Az.**	167°03'36.8432"	0°00'00.2100"	-0°00'00.2100"	-0.41
			ΔHt.	-3.994m	0.019m	0.014m	0.47
			Dist.	5657.488m	0.007m	-0.005m	-0.38
B1672	CP1042	CP1044	**Az.**	234°49'23.0284"	0°00'00.1841"	-0°00'00.0437"	-0.47
			ΔHt.	-0.186m	0.006m	-0.001m	-0.44
			Dist.	2643.998m	0.002m	0.000m	-0.07
B1860	CP1040	CP1039	**Az.**	90°27'45.6417"	0°00'00.4453"	0°00'00.1239"	0.47
			ΔHt.	-0.470m	0.007m	0.000m	-0.10
			Dist.	1462.323m	0.003m	0.000m	0.03
B2229	CP5212	CP5214	**Az.**	227°45'41.2014"	0°00'01.4573"	0°00'00.0327"	0.04
			ΔHt.	0.038m	0.019m	-0.006m	-0.47
			Dist.	891.254m	0.007m	0.000m	0.06

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1575	FLGPS 67	CP1033	**Az.**	179°14'17.9201"	0°00'00.2192"	-0°00'00.1617"	-0.47
			ΔHt.	0.227m	0.021m	0.001m	0.04
			Dist.	6664.592m	0.006m	-0.001m	-0.19
B1967	CP1144	CP5117	**Az.**	117°24'13.9362"	0°00'00.1818"	-0°00'00.1784"	-0.28
			ΔHt.	-1.204m	0.010m	0.015m	0.46
			Dist.	3811.293m	0.004m	-0.004m	-0.34
B1665	CP1048	CP1249	**Az.**	31°12'07.4891"	0°00'00.1877"	0°00'00.0838"	0.46
			ΔHt.	0.432m	0.013m	-0.004m	-0.40
			Dist.	6439.182m	0.005m	0.001m	0.23
B2138	CP1038	CP5121	**Az.**	29°28'05.1541"	0°00'00.3091"	-0°00'00.1314"	-0.42
			ΔHt.	-2.872m	0.025m	0.007m	0.36
			Dist.	14491.003m	0.014m	0.005m	0.46
B904	FLGPS 57	CP1170	**Az.**	52°02'34.1427"	0°00'00.3764"	-0°00'00.0757"	-0.43
			ΔHt.	0.285m	0.005m	0.000m	-0.19
			Dist.	1105.723m	0.002m	-0.001m	-0.46
B1681	CP1036	CP1246	**Az.**	281°39'52.1688"	0°00'00.2985"	-0°00'00.2144"	-0.23
			ΔHt.	-0.312m	0.025m	0.009m	0.17
			Dist.	5607.205m	0.008m	0.026m	0.46
B2074	CP1172	CP5153	**Az.**	69°19'42.8354"	0°00'01.3128"	-0°00'00.2757"	-0.46
			ΔHt.	-0.418m	0.010m	0.000m	-0.04
			Dist.	525.974m	0.003m	0.000m	-0.04
B2145	CP1038	CP5123	**Az.**	89°50'17.4938"	0°00'00.3860"	-0°00'00.0250"	-0.08
			ΔHt.	-0.796m	0.046m	-0.008m	-0.19
			Dist.	6823.887m	0.010m	0.004m	0.46
B2372	CP5302	CP5336	**Az.**	261°05'36.9538"	0°00'00.0864"	0°00'00.0126"	0.18
			ΔHt.	0.973m	0.021m	-0.007m	-0.46
			Dist.	18491.755m	0.010m	-0.001m	-0.07
B2174	CP5165	CP5167	**Az.**	45°50'32.2790"	0°00'04.4417"	0°00'01.7381"	0.30
			ΔHt.	-1.112m	0.012m	-0.007m	-0.46
			Dist.	260.928m	0.004m	0.001m	0.19
B1596	CP1239	CP1235	**Az.**	239°35'19.3563"	0°00'00.1179"	-0°00'00.0532"	-0.46
			ΔHt.	-0.747m	0.014m	0.000m	0.04
			Dist.	8668.621m	0.005m	0.001m	0.35
B573	CP1060	CP1061	**Az.**	88°33'48.2725"	0°00'00.5275"	0°00'00.2307"	0.45
			ΔHt.	-0.786m	0.027m	0.011m	0.42
			Dist.	3904.790m	0.013m	0.001m	0.15

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2200	CP5190	CP5188	**Az.**	165°11'17.6402"	0°00'01.6321"	-0°00'00.5058"	-0.41
			ΔHt.	-0.639m	0.010m	-0.003m	-0.45
			Dist.	490.534m	0.005m	0.000m	-0.04
B2048	CP5151	CP5152	**Az.**	38°31'38.9362"	0°00'01.8190"	0°00'00.3366"	0.34
			ΔHt.	-0.170m	0.014m	-0.004m	-0.45
			Dist.	460.179m	0.005m	0.000m	-0.18
B2278	CP5195	CP5196	**Az.**	68°30'07.9038"	0°00'00.5729"	0°00'00.1150"	0.40
			ΔHt.	-0.891m	0.011m	0.002m	0.34
			Dist.	1058.985m	0.004m	-0.001m	-0.45
B518	CP1081	CP1080	**Az.**	178°29'03.4924"	0°00'00.4547"	-0°00'00.0791"	-0.34
			ΔHt.	0.608m	0.007m	-0.001m	-0.32
			Dist.	1642.337m	0.003m	0.001m	0.45
B2300	CP5188	CP5189	**Az.**	326°12'11.3605"	0°00'04.8561"	-0°00'00.4555"	-0.21
			ΔHt.	0.523m	0.010m	0.000m	0.12
			Dist.	183.825m	0.004m	0.001m	0.45
B14	CP1143	CP1142	**Az.**	63°25'47.1749"	0°00'00.2041"	0°00'00.0106"	0.10
			ΔHt.	0.610m	0.005m	0.000m	0.20
			Dist.	1813.583m	0.002m	0.001m	0.45
B2047	CP5150	CP5152	**Az.**	35°58'06.8951"	0°00'00.8486"	0°00'00.2395"	0.45
			ΔHt.	-0.053m	0.014m	-0.003m	-0.28
			Dist.	1001.676m	0.005m	-0.001m	-0.34
B51	S 2 27	CP1200	**Az.**	145°21'49.6432"	0°00'00.0931"	0°00'00.1163"	0.45
			ΔHt.	-8.973m	0.014m	-0.002m	-0.10
			Dist.	7839.155m	0.004m	0.000m	0.00
B29	700-93-06-B08	CP1192	**Az.**	96°50'40.6734"	0°00'00.2700"	-0°00'00.0321"	-0.26
			ΔHt.	-0.542m	0.011m	0.000m	0.04
			Dist.	3481.218m	0.005m	0.001m	0.45
B2184	CP5165	CP5162	**Az.**	168°26'24.5086"	0°00'01.7559"	0°00'00.4247"	0.44
			ΔHt.	-0.619m	0.007m	0.002m	0.43
			Dist.	347.897m	0.003m	0.000m	0.29
B2070	CP5145	CP5144	**Az.**	236°26'02.9357"	0°00'00.5417"	-0°00'00.0358"	-0.10
			ΔHt.	0.760m	0.008m	0.000m	-0.03
			Dist.	1253.145m	0.003m	0.001m	0.44
B2436	CP5306	CP5303	**Az.**	47°45'18.8499"	0°00'00.1635"	0°00'00.0539"	0.44
			ΔHt.	-1.135m	0.011m	-0.002m	-0.20
			Dist.	4860.709m	0.003m	0.000m	0.19

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B519	CP1078	CP1221	**Az.**	55°25'04.3748"	0°00'00.1888"	0°00'00.0535"	0.28
			ΔHt.	-1.313m	0.025m	0.012m	0.44
			Dist.	7471.483m	0.008m	-0.003m	-0.37
B2215	CP5224	CP5226	**Az.**	299°58'00.6976"	0°00'00.4888"	0°00'00.0822"	0.28
			ΔHt.	-0.394m	0.016m	0.004m	0.44
			Dist.	1735.360m	0.004m	0.000m	0.02
B2205	CP5187	CP5185	**Az.**	244°16'19.0570"	0°00'00.9183"	-0°00'00.2754"	-0.44
			ΔHt.	-0.905m	0.010m	0.000m	-0.05
			Dist.	1153.462m	0.003m	-0.001m	-0.26
B2374	CP5302	CP5333	**Az.**	230°02'08.8172"	0°00'00.1406"	0°00'00.0504"	0.44
			ΔHt.	1.420m	0.021m	0.001m	0.05
			Dist.	10042.801m	0.011m	-0.002m	-0.19
B2249	CP5195	CP5197	**Az.**	57°12'03.9975"	0°00'01.1470"	-0°00'00.2370"	-0.44
			ΔHt.	-0.115m	0.010m	-0.001m	-0.24
			Dist.	498.109m	0.003m	0.000m	-0.14
B2443	CP5306	CP5304	**Az.**	54°00'40.4957"	0°00'00.2086"	0°00'00.1023"	0.44
			ΔHt.	-0.921m	0.010m	0.000m	0.03
			Dist.	3708.214m	0.003m	0.000m	0.12
B609	CORNER AZ	CP1243	**Az.**	347°10'53.5034"	0°00'00.5371"	0°00'00.2683"	0.44
			ΔHt.	-1.570m	0.018m	-0.003m	-0.14
			Dist.	3455.978m	0.007m	-0.002m	-0.21
B2155	CP5161	CP5162	**Az.**	355°57'59.6244"	0°00'01.9973"	0°00'00.2533"	0.23
			ΔHt.	0.193m	0.009m	-0.001m	-0.16
			Dist.	328.964m	0.004m	0.001m	0.43
B2311	CP5125	CP5126	**Az.**	114°42'03.3402"	0°00'00.4313"	-0°00'00.0324"	-0.14
			ΔHt.	0.590m	0.062m	-0.006m	-0.16
			Dist.	10471.706m	0.027m	-0.005m	-0.43
B2328	CP1021	CP5126	**Az.**	98°55'52.1892"	0°00'00.5558"	0°00'00.1007"	0.31
			ΔHt.	2.529m	0.061m	0.009m	0.32
			Dist.	9623.314m	0.023m	0.006m	0.43
B2289	CP5222	CP5220	**Az.**	133°45'19.9363"	0°00'01.1218"	-0°00'00.0574"	-0.13
			ΔHt.	0.101m	0.012m	0.002m	0.43
			Dist.	711.711m	0.008m	-0.001m	-0.28
B1348	CP1123	CP1002	**Az.**	9°30'48.8297"	0°00'00.4014"	0°00'00.0500"	0.20
			ΔHt.	-3.278m	0.044m	0.005m	0.16
			Dist.	4857.114m	0.022m	0.008m	0.43

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2220	CP5219	CP5220	**Az.**	179°43'09.0189"	0°00'00.6896"	-0°00'00.0439"	-0.14
			ΔHt.	-0.894m	0.012m	-0.002m	-0.43
			Dist.	1522.989m	0.007m	0.001m	0.23
B1953	CP1241	CP5116	**Az.**	236°48'46.6030"	0°00'00.3055"	-0°00'00.0557"	-0.43
			ΔHt.	-0.468m	0.007m	0.000m	-0.14
			Dist.	2966.394m	0.003m	0.000m	-0.12
B1062	CP1164	CP1165	**Az.**	0°18'30.2093"	0°00'00.2604"	-0°00'00.0085"	-0.06
			ΔHt.	2.050m	0.006m	0.001m	0.22
			Dist.	2628.135m	0.003m	0.001m	0.43
B2020	CP1305	CP5136	**Az.**	48°03'59.2199"	0°00'00.4760"	-0°00'00.1011"	-0.31
			ΔHt.	1.253m	0.012m	-0.003m	-0.42
			Dist.	2224.780m	0.004m	0.001m	0.19
B1454	CP1009	CP1008	**Az.**	316°58'58.7573"	0°00'00.3069"	0°00'00.0547"	0.42
			ΔHt.	2.789m	0.011m	0.000m	0.04
			Dist.	2499.334m	0.004m	0.001m	0.32
B1402	CP1131	CP1189	**Az.**	56°59'37.9336"	0°00'00.1665"	0°00'00.0282"	0.32
			ΔHt.	1.551m	0.010m	-0.002m	-0.38
			Dist.	4755.522m	0.005m	-0.001m	-0.42
B2391	CP5327	CP5328	**Az.**	260°33'32.3800"	0°00'00.1182"	0°00'00.0225"	0.42
			ΔHt.	1.601m	0.015m	0.001m	0.12
			Dist.	10631.676m	0.005m	-0.001m	-0.28
B2004	CP1153	CP5136	**Az.**	127°31'45.9103"	0°00'00.4763"	0°00'00.0954"	0.42
			ΔHt.	-0.763m	0.011m	0.002m	0.35
			Dist.	1657.457m	0.005m	0.001m	0.42
B2156	CP5159	CP5162	**Az.**	59°49'29.2505"	0°00'00.6950"	-0°00'00.1280"	-0.29
			ΔHt.	0.909m	0.009m	-0.002m	-0.40
			Dist.	1070.478m	0.003m	0.001m	0.42
B2320	CP5177	CP5179	**Az.**	85°40'54.9599"	0°00'01.1391"	0°00'00.0024"	0.00
			ΔHt.	-0.381m	0.010m	-0.003m	-0.42
			Dist.	692.151m	0.003m	0.000m	-0.12
B1263	CP1019	CP1132	**Az.**	246°10'19.3613"	0°00'00.1388"	-0°00'00.0129"	-0.10
			ΔHt.	-2.296m	0.010m	0.003m	0.29
			Dist.	5961.232m	0.005m	0.002m	0.41
B2166	CP5159	CP5160	**Az.**	55°10'34.8707"	0°00'01.6772"	0°00'00.3153"	0.41
			ΔHt.	1.448m	0.009m	-0.001m	-0.15
			Dist.	411.340m	0.003m	0.000m	0.36

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1463	CP1209	CP1259	**Az.**	15°19'09.6530"	0°00'00.2009"	-0°00'00.0479"	-0.10
			ΔHt.	-0.504m	0.013m	-0.006m	-0.34
			Dist.	5805.554m	0.004m	0.003m	0.41
B2275	CP5200	CP5199	**Az.**	241°48'26.4774"	0°00'01.5324"	-0°00'00.2815"	-0.34
			ΔHt.	0.584m	0.008m	0.000m	0.08
			Dist.	753.931m	0.003m	-0.001m	-0.41
B1954	CP5116	CP5119	**Az.**	63°12'48.4268"	0°00'00.3256"	0°00'00.0483"	0.41
			ΔHt.	-0.993m	0.007m	0.000m	-0.10
			Dist.	2753.433m	0.003m	0.000m	0.25
B2219	CP5222	CP5219	**Az.**	26°10'13.9174"	0°00'01.1208"	-0°00'00.0196"	-0.03
			ΔHt.	0.995m	0.010m	0.002m	0.41
			Dist.	1148.502m	0.005m	0.000m	0.02
B2250	CP5192	CP5190	**Az.**	193°14'22.3378"	0°00'02.1285"	-0°00'00.5058"	-0.41
			ΔHt.	0.673m	0.014m	0.003m	0.32
			Dist.	367.712m	0.004m	-0.001m	-0.26
B1976	CP5118	CP5113	**Az.**	335°28'40.2691"	0°00'00.2343"	-0°00'00.0654"	-0.16
			ΔHt.	0.007m	0.012m	-0.012m	-0.41
			Dist.	3635.286m	0.005m	0.002m	0.25
B2339	CP1122	CP5177	**Az.**	359°27'32.3452"	0°00'01.1335"	-0°00'00.2381"	-0.41
			ΔHt.	-1.152m	0.010m	-0.001m	-0.23
			Dist.	546.600m	0.005m	0.001m	0.40
B2248	CP5197	CP5194	**Az.**	179°54'34.8763"	0°00'02.1265"	-0°00'00.5454"	-0.40
			ΔHt.	-0.312m	0.011m	0.001m	0.14
			Dist.	344.174m	0.003m	0.000m	0.05
B2424	CP5328	CP5332	**Az.**	305°02'38.9919"	0°00'00.1996"	-0°00'00.0141"	-0.11
			ΔHt.	0.307m	0.022m	0.004m	0.31
			Dist.	7280.512m	0.007m	0.002m	0.40
B2175	CP5167	CP5169	**Az.**	31°15'39.8634"	0°00'00.9414"	0°00'00.0265"	0.05
			ΔHt.	-1.503m	0.010m	-0.002m	-0.40
			Dist.	848.751m	0.004m	0.000m	-0.26
B2237	CP1003	CP5205	**Az.**	147°39'21.1537"	0°00'01.3418"	-0°00'00.0507"	-0.08
			ΔHt.	0.440m	0.010m	-0.002m	-0.40
			Dist.	505.594m	0.004m	-0.001m	-0.38
B2162	CP5159	CP5161	**Az.**	77°31'17.1934"	0°00'00.6948"	-0°00'00.1328"	-0.40
			ΔHt.	0.717m	0.008m	0.000m	0.00
			Dist.	971.534m	0.003m	0.000m	0.24

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B1828	CP1031	CP1248	**Az.**	216°59'38.0316"	0°00'00.1827"	-0°00'00.0410"	-0.25
			ΔHt.	0.352m	0.013m	-0.004m	-0.40
			Dist.	5677.702m	0.005m	0.000m	-0.07
B2149	CP1180	CP1181	**Az.**	79°49'08.0895"	0°00'00.2159"	0°00'00.0389"	0.22
			ΔHt.	-0.936m	0.010m	0.000m	-0.01
			Dist.	2805.418m	0.003m	0.001m	0.40
B1821	FLGPS 67	CP1035	**Az.**	144°43'52.6602"	0°00'00.1256"	-0°00'00.0335"	-0.33
			ΔHt.	-0.038m	0.018m	-0.005m	-0.39
			Dist.	8280.000m	0.006m	0.000m	0.06
B2207	CP5227	CP5195	**Az.**	108°10'53.1134"	0°00'00.2963"	0°00'00.0184"	0.13
			ΔHt.	-0.546m	0.008m	-0.001m	-0.39
			Dist.	2079.009m	0.003m	0.000m	-0.08
B1185	CP1105	CP1106	**Az.**	35°05'47.2618"	0°00'00.1524"	0°00'00.0008"	0.02
			ΔHt.	0.578m	0.005m	0.000m	0.19
			Dist.	2923.748m	0.002m	0.000m	-0.39
B2034	CP1159	CP5142	**Az.**	324°55'07.4603"	0°00'00.2531"	-0°00'00.0008"	0.00
			ΔHt.	1.193m	0.009m	0.001m	0.18
			Dist.	2383.634m	0.004m	0.001m	0.39
B1979	CP5118	CP5111	**Az.**	18°02'54.8670"	0°00'00.3412"	-0°00'00.0540"	-0.20
			ΔHt.	-0.397m	0.012m	-0.004m	-0.23
			Dist.	2263.876m	0.004m	-0.001m	-0.39
B2199	CP5190	CP5191	**Az.**	251°54'40.8517"	0°00'02.0749"	-0°00'00.0047"	0.00
			ΔHt.	-0.226m	0.013m	0.003m	0.39
			Dist.	502.081m	0.005m	-0.001m	-0.29
B1516	CP1257	CP1256	**Az.**	229°04'57.5538"	0°00'00.1348"	-0°00'00.0064"	-0.25
			ΔHt.	0.466m	0.021m	-0.004m	-0.37
			Dist.	7351.810m	0.004m	0.000m	-0.39
B1937	CP5105	CP5107	**Az.**	308°11'16.9468"	0°00'00.4273"	0°00'00.0263"	0.08
			ΔHt.	-0.490m	0.010m	-0.003m	-0.39
			Dist.	1575.859m	0.004m	0.001m	0.28
B2305	CP5181	CP5180	**Az.**	157°31'39.0903"	0°00'01.0067"	-0°00'00.1399"	-0.23
			ΔHt.	-0.789m	0.008m	0.002m	0.39
			Dist.	544.727m	0.003m	0.001m	0.28
B2271	CP5207	CP5205	**Az.**	187°21'10.2547"	0°00'00.9064"	-0°00'00.1490"	-0.34
			ΔHt.	0.613m	0.010m	0.002m	0.39
			Dist.	629.631m	0.004m	0.000m	0.20

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2176	CP1183	CP5167	**Az.**	20°56'22.9008"	0°00'02.3394"	0°00'00.6023"	0.19
			ΔHt.	-1.316m	0.012m	-0.006m	-0.38
			Dist.	437.106m	0.005m	0.000m	0.04
B2044	CP5148	CP5147	**Az.**	261°40'12.2098"	0°00'00.9944"	-0°00'00.7224"	-0.38
			ΔHt.	0.506m	0.009m	0.002m	0.09
			Dist.	817.200m	0.003m	0.000m	0.00
B1760	CP1026	CP1194	**Az.**	185°43'01.4359"	0°00'00.0912"	-0°00'00.0527"	-0.38
			ΔHt.	-2.243m	0.013m	0.000m	-0.03
			Dist.	10191.105m	0.004m	0.000m	0.08
B2306	CP5184	CP5181	**Az.**	105°48'50.6144"	0°00'00.4370"	0°00'00.0346"	0.15
			ΔHt.	-0.088m	0.008m	0.000m	0.09
			Dist.	1494.649m	0.004m	0.001m	0.38
B2277	CP5194	CP5196	**Az.**	50°45'19.4609"	0°00'00.9019"	-0°00'00.1833"	-0.38
			ΔHt.	-0.464m	0.012m	-0.001m	-0.22
			Dist.	730.937m	0.004m	0.000m	-0.06
B2150	CP1181	CP5156	**Az.**	247°16'54.7188"	0°00'00.7609"	-0°00'00.0336"	-0.07
			ΔHt.	-0.042m	0.010m	0.002m	0.38
			Dist.	902.575m	0.003m	-0.001m	-0.37
B2056	CP1168	CP5145	**Az.**	14°26'34.7146"	0°00'00.5576"	0°00'00.0980"	0.24
			ΔHt.	-2.320m	0.006m	0.001m	0.26
			Dist.	1036.980m	0.002m	0.001m	0.37
B485	CP1071	Y 530	**Az.**	244°48'08.8625"	0°00'00.1947"	-0°00'00.0355"	-0.18
			ΔHt.	-0.462m	0.021m	0.002m	0.10
			Dist.	7366.237m	0.009m	-0.004m	-0.37
B2217	CP5224	CP5225	**Az.**	299°31'57.3483"	0°00'00.2888"	0°00'00.0676"	0.37
			ΔHt.	-0.051m	0.015m	0.002m	0.23
			Dist.	2974.082m	0.005m	0.000m	0.07
B2214	CP5228	CP5224	**Az.**	289°00'04.8407"	0°00'00.4134"	0°00'00.0350"	0.16
			ΔHt.	0.410m	0.014m	0.003m	0.37
			Dist.	2187.740m	0.004m	0.000m	-0.15
B483	CP1217	CP1069	**Az.**	260°30'50.6854"	0°00'00.3882"	0°00'00.0513"	0.14
			ΔHt.	2.056m	0.023m	-0.005m	-0.30
			Dist.	5677.579m	0.010m	0.003m	0.37
B2241	CP1120	CP5203	**Az.**	316°37'40.7126"	0°00'01.1493"	0°00'00.1639"	0.30
			ΔHt.	0.227m	0.008m	0.001m	0.32
			Dist.	561.817m	0.004m	-0.001m	-0.37

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2410	CP5329	CP5332	**Az.**	335°30'32.4092"	0°00'00.2964"	-0°00'00.0040"	-0.03
			ΔHt.	0.432m	0.020m	0.003m	0.36
			Dist.	4437.684m	0.007m	-0.001m	-0.25
B2392	CP5330	CP5329	**Az.**	112°06'27.8131"	0°00'00.2343"	0°00'00.1347"	0.36
			ΔHt.	-2.309m	0.027m	0.009m	0.28
			Dist.	9688.484m	0.009m	0.003m	0.28
B2427	CP5322	CP5320	**Az.**	100°13'26.7314"	0°00'00.4401"	0°00'00.1069"	0.36
			ΔHt.	-0.009m	0.025m	-0.002m	-0.12
			Dist.	4799.441m	0.007m	0.000m	-0.01
B397	Y 530	CP1072	**Az.**	52°52'05.4994"	0°00'00.2347"	-0°00'00.0096"	-0.05
			ΔHt.	0.213m	0.021m	0.008m	0.36
			Dist.	7542.219m	0.012m	-0.001m	-0.08
B494	CP1079	CP1080	**Az.**	269°06'55.3863"	0°00'00.1651"	-0°00'00.0292"	-0.35
			ΔHt.	0.236m	0.008m	0.000m	0.06
			Dist.	4238.802m	0.004m	0.000m	0.11
B1559	CP1060	CP1062	**Az.**	279°48'53.6611"	0°00'00.3890"	-0°00'00.0573"	-0.33
			ΔHt.	-0.150m	0.013m	0.002m	0.35
			Dist.	1980.842m	0.005m	0.000m	0.13
B1018	K 523	CP1179	**Az.**	274°35'16.7782"	0°00'00.4684"	0°00'00.0823"	0.35
			ΔHt.	-3.638m	0.022m	-0.001m	-0.06
			Dist.	2147.235m	0.007m	-0.001m	-0.19
B997	CP1230	CP1175	**Az.**	130°03'41.6101"	0°00'00.3923"	0°00'00.0694"	0.18
			ΔHt.	-1.587m	0.067m	0.031m	0.35
			Dist.	7693.308m	0.020m	0.007m	0.28
B2158	CP1180	CP5156	**Az.**	85°38'16.3811"	0°00'00.2316"	-0°00'00.0339"	-0.35
			ΔHt.	-0.977m	0.008m	-0.001m	-0.19
			Dist.	1934.375m	0.003m	0.000m	-0.04
B581	CP1058	CORNER AZ	**Az.**	268°41'44.4522"	0°00'00.1348"	0°00'00.0216"	0.34
			ΔHt.	2.452m	0.018m	0.001m	0.17
			Dist.	9844.078m	0.009m	0.001m	0.34
B2069	CP5154	CP5155	**Az.**	73°48'59.8153"	0°00'01.1531"	-0°00'00.0335"	-0.05
			ΔHt.	-0.031m	0.009m	0.002m	0.34
			Dist.	1095.521m	0.003m	0.000m	0.14
B1032	CP1095	CP1094	**Az.**	104°22'23.2882"	0°00'00.2034"	0°00'00.0243"	0.34
			ΔHt.	-1.981m	0.012m	0.001m	0.17
			Dist.	4372.848m	0.006m	0.001m	0.27

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2202	CP5190	CP5189	**Az.**	175°52'53.3247"	0°00'02.1756"	-0°00'00.1721"	-0.19
			ΔHt.	-0.117m	0.009m	-0.001m	-0.25
			Dist.	322.306m	0.004m	0.001m	0.34
B2270	CP5209	CP5207	**Az.**	182°37'14.5042"	0°00'00.8062"	-0°00'00.1146"	-0.26
			ΔHt.	-0.211m	0.010m	0.001m	0.26
			Dist.	700.144m	0.004m	0.001m	0.34
B1753	CP1023	CP1136	**Az.**	239°23'03.0878"	0°00'00.1881"	0°00'00.0166"	0.14
			ΔHt.	-1.610m	0.013m	-0.003m	-0.34
			Dist.	5510.877m	0.004m	-0.001m	-0.23
B2404	CP5319	CP5323	**Az.**	286°38'18.7565"	0°00'00.2814"	0°00'00.0337"	0.31
			ΔHt.	0.437m	0.024m	0.003m	0.34
			Dist.	6679.818m	0.009m	-0.001m	-0.20
B2016	CP1219	CP5132	**Az.**	15°50'42.7375"	0°00'00.2377"	0°00'00.0027"	0.02
			ΔHt.	-0.101m	0.010m	-0.002m	-0.34
			Dist.	3054.783m	0.003m	0.000m	0.15
B2297	CP5200	CP5198	**Az.**	181°02'48.6745"	0°00'01.8083"	-0°00'00.3147"	-0.34
			ΔHt.	0.032m	0.008m	0.001m	0.29
			Dist.	443.828m	0.005m	0.001m	0.19
B1745	CP1024	CP1025	**Az.**	146°19'28.9068"	0°00'00.2342"	0°00'00.0176"	0.13
			ΔHt.	0.481m	0.019m	-0.003m	-0.30
			Dist.	5262.832m	0.007m	-0.001m	-0.33
B1388	CP1002	CP1004	**Az.**	92°30'25.4672"	0°00'01.5500"	0°00'00.3489"	0.29
			ΔHt.	1.052m	0.046m	-0.007m	-0.21
			Dist.	2965.717m	0.008m	-0.001m	-0.33
B2357	CP5338	CP5339	**Az.**	273°03'17.3315"	0°00'00.3462"	0°00'00.0273"	0.11
			ΔHt.	0.944m	0.024m	0.004m	0.33
			Dist.	7122.624m	0.009m	0.000m	0.05
B2210	CP5229	CP5227	**Az.**	90°03'08.3333"	0°00'01.0414"	0°00'00.1421"	0.33
			ΔHt.	-0.254m	0.014m	0.001m	0.23
			Dist.	1058.253m	0.003m	0.000m	-0.07
B1996	CP1219	CP5134	**Az.**	30°16'59.4111"	0°00'00.2739"	-0°00'00.0575"	-0.33
			ΔHt.	0.730m	0.010m	0.000m	0.00
			Dist.	2640.167m	0.003m	0.000m	0.09
B1591	MF 41	CP1038	**Az.**	321°25'18.9473"	0°00'00.2562"	-0°00'00.0848"	-0.33
			ΔHt.	-0.988m	0.010m	-0.003m	-0.29
			Dist.	4234.944m	0.004m	-0.001m	-0.33

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B464	FDEM-BC1	CP1067	**Az.**	351°53'05.2006"	0°00'00.0982"	0°00'00.0779"	0.33
			ΔHt.	0.718m	0.013m	-0.005m	-0.16
			Dist.	10016.559m	0.004m	-0.003m	-0.32
B2188	CP5169	CP5170	**Az.**	24°27'28.4350"	0°00'03.5693"	0°00'00.0668"	0.03
			ΔHt.	0.290m	0.011m	-0.002m	-0.33
			Dist.	224.071m	0.004m	0.000m	-0.21
B2268	CP5211	CP5214	**Az.**	252°17'19.8584"	0°00'00.7316"	0°00'00.0326"	0.08
			ΔHt.	1.053m	0.017m	-0.003m	-0.32
			Dist.	1977.669m	0.006m	0.000m	0.10
B1797	CP1026	CP1029	**Az.**	130°40'14.5498"	0°00'00.1297"	-0°00'00.1401"	-0.32
			ΔHt.	0.617m	0.013m	0.003m	0.10
			Dist.	7311.598m	0.005m	0.001m	0.11
B1259	CP1188	CP1010	**Az.**	335°10'05.4832"	0°00'00.4125"	0°00'00.0753"	0.30
			ΔHt.	0.409m	0.016m	0.001m	0.09
			Dist.	2470.219m	0.016m	-0.004m	-0.32
B2246	CP5198	CP5197	**Az.**	226°17'03.1426"	0°00'01.9916"	-0°00'00.2808"	-0.25
			ΔHt.	0.308m	0.008m	0.002m	0.32
			Dist.	596.022m	0.004m	0.000m	-0.02
B566	CP1063	Y 535	**Az.**	234°14'21.1089"	0°00'00.1492"	0°00'00.0162"	0.05
			ΔHt.	0.088m	0.009m	-0.005m	-0.29
			Dist.	3827.123m	0.003m	-0.001m	-0.32
B2347	CP5341	CP5301	**Az.**	116°46'06.5618"	0°00'00.1378"	-0°00'00.0149"	-0.20
			ΔHt.	0.751m	0.029m	-0.005m	-0.25
			Dist.	24101.527m	0.022m	0.005m	0.32
B66	S 2 27	CP1241	**Az.**	92°54'56.7492"	0°00'00.0828"	0°00'00.0915"	0.26
			ΔHt.	-8.906m	0.013m	0.000m	0.01
			Dist.	8012.089m	0.004m	-0.004m	-0.32
B2299	CP5194	CP5193	**Az.**	88°37'14.9401"	0°00'01.7118"	0°00'00.0493"	0.06
			ΔHt.	-0.195m	0.012m	0.001m	0.12
			Dist.	350.784m	0.004m	0.001m	0.31
B2262	CP5221	CP5220	**Az.**	161°44'13.5999"	0°00'01.2058"	-0°00'00.3035"	-0.31
			ΔHt.	-0.578m	0.023m	0.003m	0.19
			Dist.	1619.109m	0.013m	0.001m	0.13
B2288	CP5223	CP5225	**Az.**	269°54'46.5311"	0°00'00.3259"	-0°00'00.0534"	-0.31
			ΔHt.	-0.404m	0.015m	-0.001m	-0.13
			Dist.	2598.118m	0.004m	0.000m	0.18

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2168	CP5165	CP5163	**Az.**	144°18'33.7948"	0°00'00.7248"	0°00'00.1188"	0.31
			ΔHt.	-0.838m	0.007m	0.001m	0.16
			Dist.	731.656m	0.004m	0.000m	-0.10
B2057	CP1168	CP5145	**Az.**	14°26'34.7146"	0°00'00.5576"	-0°00'00.2298"	-0.15
			ΔHt.	-2.320m	0.006m	-0.005m	-0.31
			Dist.	1036.980m	0.002m	0.000m	-0.03
B1713	CP1137	CP1245	**Az.**	64°49'11.2858"	0°00'00.2351"	-0°00'00.0503"	-0.03
			ΔHt.	-2.288m	0.017m	0.022m	0.31
			Dist.	5634.017m	0.007m	-0.002m	-0.08
B1997	CP5134	CP5132	**Az.**	322°57'33.4861"	0°00'00.5855"	-0°00'00.0318"	-0.15
			ΔHt.	-0.832m	0.008m	0.001m	0.30
			Dist.	825.427m	0.002m	0.000m	0.09
B2053	CP1174	CP5154	**Az.**	251°40'49.3736"	0°00'00.5321"	-0°00'00.0503"	-0.12
			ΔHt.	0.591m	0.009m	-0.002m	-0.30
			Dist.	2145.000m	0.004m	0.000m	0.20
B602	S 410 X	CP1243	**Az.**	274°40'51.5588"	0°00'00.0835"	0°00'00.0409"	0.20
			ΔHt.	0.353m	0.020m	0.001m	0.04
			Dist.	8978.092m	0.004m	0.002m	0.30
B1246	CP1134	CP1190	**Az.**	16°15'51.7406"	0°00'00.1307"	0°00'00.0073"	0.07
			ΔHt.	-0.140m	0.005m	0.002m	0.30
			Dist.	3398.860m	0.002m	0.000m	0.04
B2301	CP5188	CP5187	**Az.**	179°17'11.0972"	0°00'01.2013"	-0°00'00.1550"	-0.29
			ΔHt.	-0.431m	0.008m	0.000m	0.03
			Dist.	527.936m	0.004m	0.000m	0.14
B2315	CP1021	CP5125	**Az.**	359°51'44.7714"	0°00'00.4601"	-0°00'00.3415"	-0.13
			ΔHt.	1.940m	0.015m	0.013m	0.25
			Dist.	2881.953m	0.007m	-0.002m	-0.29
B2282	CP5191	CP5189	**Az.**	108°18'24.3924"	0°00'02.1842"	-0°00'00.2919"	-0.29
			ΔHt.	0.109m	0.012m	0.001m	0.24
			Dist.	527.099m	0.004m	0.000m	0.24
B2334	CP1122	CP5176	**Az.**	296°11'47.6106"	0°00'00.7001"	-0°00'00.1712"	-0.29
			ΔHt.	-0.951m	0.013m	0.001m	0.05
			Dist.	1550.255m	0.004m	0.000m	-0.06
B2142	CP1030	CP5127	**Az.**	270°52'07.5957"	0°00'00.6101"	-0°00'00.0005"	0.00
			ΔHt.	0.935m	0.008m	-0.002m	-0.29
			Dist.	1610.461m	0.003m	0.000m	0.03

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2293	CP5209	CP5210	**Az.**	270°41'37.7026"	0°00'01.2796"	0°00'00.1868"	0.28
			ΔHt.	0.461m	0.010m	-0.001m	-0.25
			Dist.	619.952m	0.003m	0.000m	0.09
B862	CP1229	FLGPS 57	**Az.**	167°32'16.5373"	0°00'00.0900"	-0°00'00.0244"	-0.19
			ΔHt.	-2.351m	0.007m	0.002m	0.25
			Dist.	6280.118m	0.002m	0.001m	0.28
B2329	CP5184	CP5183	**Az.**	77°01'51.5012"	0°00'00.6695"	-0°00'00.1097"	-0.27
			ΔHt.	0.646m	0.008m	0.001m	0.28
			Dist.	1239.054m	0.004m	0.000m	-0.07
B1435	CP1005	CP1006	**Az.**	180°14'23.7353"	0°00'01.4585"	0°00'00.0084"	0.01
			ΔHt.	-1.201m	0.037m	-0.003m	-0.13
			Dist.	1791.970m	0.011m	-0.001m	-0.28
B1583	CP1033	CP1246	**Az.**	194°29'30.7826"	0°00'00.4251"	-0°00'00.4172"	-0.28
			ΔHt.	-0.365m	0.024m	-0.004m	-0.14
			Dist.	4091.001m	0.008m	0.000m	0.01
B2283	CP5188	CP5186	**Az.**	183°49'01.0684"	0°00'00.8905"	-0°00'00.1172"	-0.28
			ΔHt.	-1.436m	0.008m	0.000m	-0.04
			Dist.	753.389m	0.004m	0.000m	0.20
B2390	CP5327	CP5317	**Az.**	167°37'55.8744"	0°00'00.0898"	-0°00'00.0088"	-0.15
			ΔHt.	-0.158m	0.021m	-0.004m	-0.27
			Dist.	13254.561m	0.008m	0.000m	-0.03
B2064	CP1171	CP5151	**Az.**	35°48'59.0671"	0°00'00.5935"	0°00'00.0912"	0.24
			ΔHt.	0.069m	0.014m	-0.002m	-0.27
			Dist.	1412.417m	0.005m	-0.001m	-0.26
B105	CP1153	CP1305-PA1	**Az.**	187°46'15.0787"	0°00'00.2283"	-0°00'00.1545"	-0.24
			ΔHt.	-2.018m	0.007m	0.002m	0.15
			Dist.	2519.505m	0.002m	0.002m	0.27
B2036	CP5145	CP5146	**Az.**	246°46'01.2289"	0°00'00.3659"	-0°00'00.0077"	-0.03
			ΔHt.	0.798m	0.008m	-0.001m	-0.27
			Dist.	1755.231m	0.003m	0.000m	-0.13
B2076	CP1173	CP5155	**Az.**	72°37'47.7152"	0°00'01.0808"	0°00'00.1431"	0.21
			ΔHt.	-0.066m	0.009m	0.001m	0.27
			Dist.	1145.904m	0.003m	0.000m	-0.03
B2186	CP5165	CP5166	**Az.**	283°47'22.3359"	0°00'02.2726"	0°00'00.3108"	0.26
			ΔHt.	-0.864m	0.010m	-0.001m	-0.15
			Dist.	347.293m	0.004m	0.000m	-0.08

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2252	CP5193	CP5190	**Az.**	174°54'33.8971"	0°00'01.5391"	-0°00'00.2038"	-0.26
			ΔHt.	-0.296m	0.013m	0.001m	0.08
			Dist.	546.234m	0.003m	0.000m	0.04
B1458	CP1133	CP1134	**Az.**	159°15'33.1101"	0°00'00.1413"	0°00'00.0080"	0.09
			ΔHt.	0.624m	0.006m	0.001m	0.26
			Dist.	3944.464m	0.002m	0.000m	0.20
B2218	CP5221	CP5219	**Az.**	91°40'15.0853"	0°00'04.4208"	0°00'00.3335"	0.12
			ΔHt.	0.316m	0.022m	0.003m	0.18
			Dist.	500.079m	0.012m	0.002m	0.26
B2208	CP5230	CP5195	**Az.**	114°53'47.7850"	0°00'00.4946"	0°00'00.0747"	0.26
			ΔHt.	-0.249m	0.010m	0.001m	0.12
			Dist.	1503.716m	0.004m	0.000m	-0.05
B2367	CP5337	CP5301	**Az.**	115°06'13.6560"	0°00'00.5188"	0°00'00.0153"	0.05
			ΔHt.	1.142m	0.033m	-0.004m	-0.26
			Dist.	13100.432m	0.037m	-0.001m	-0.06
B2350	CP5341	CP5337	**Az.**	118°48'01.8802"	0°00'00.5710"	0°00'00.0167"	0.03
			ΔHt.	-0.391m	0.036m	-0.011m	-0.26
			Dist.	11013.843m	0.041m	0.004m	0.08
B2377	CP5342	CP5337	**Az.**	239°01'29.5656"	0°00'01.0134"	-0°00'00.0635"	-0.06
			ΔHt.	-0.438m	0.036m	-0.002m	-0.06
			Dist.	10163.851m	0.013m	0.004m	0.26
B2279	CP5194	CP5192	**Az.**	110°11'03.3736"	0°00'01.3247"	-0°00'00.0845"	-0.14
			ΔHt.	-1.165m	0.012m	0.000m	0.08
			Dist.	514.993m	0.003m	0.000m	0.26
B2368	CP5338	CP5301	**Az.**	87°37'55.2736"	0°00'00.2200"	0°00'00.0077"	0.04
			ΔHt.	0.838m	0.029m	0.002m	0.08
			Dist.	21995.492m	0.014m	-0.003m	-0.25
B1245	CP1190	CP1132	**Az.**	307°25'21.7752"	0°00'00.1209"	-0°00'00.0150"	-0.25
			ΔHt.	-0.581m	0.006m	0.000m	0.09
			Dist.	3920.834m	0.003m	0.000m	0.15
B1664	CP1042	CP1043	**Az.**	176°49'06.3286"	0°00'00.3699"	-0°00'00.0307"	-0.25
			ΔHt.	0.097m	0.006m	0.000m	-0.21
			Dist.	1402.671m	0.002m	0.000m	0.24
B2253	CP5227	CP5231	**Az.**	149°18'06.0360"	0°00'00.6592"	0°00'00.0748"	0.25
			ΔHt.	-0.674m	0.009m	0.000m	0.08
			Dist.	926.123m	0.004m	0.000m	0.06

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Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2281	CP5191	CP5188	**Az.**	117°50'30.6767"	0°00'01.8931"	0°00'00.4080"	0.25
			ΔHt.	-0.414m	0.013m	0.002m	0.15
			Dist.	681.581m	0.004m	0.000m	0.13
B1354	CP1190	CP1133	**Az.**	280°17'22.4608"	0°00'00.1637"	-0°00'00.0191"	-0.25
			ΔHt.	-0.484m	0.005m	0.000m	0.15
			Dist.	2386.755m	0.003m	0.000m	0.16
B2366	CP5342	CP5301	**Az.**	163°45'40.4796"	0°00'00.1963"	0°00'00.0090"	0.08
			ΔHt.	0.704m	0.029m	0.004m	0.24
			Dist.	11245.757m	0.028m	-0.001m	-0.04
B2285	CP5227	CP5230	**Az.**	91°28'29.3828"	0°00'01.2582"	0°00'00.1620"	0.24
			ΔHt.	-0.297m	0.010m	0.000m	0.06
			Dist.	611.408m	0.003m	0.000m	-0.13
B2021	CP5136	CP5135	**Az.**	275°39'40.3837"	0°00'02.2298"	-0°00'00.2312"	-0.24
			ΔHt.	-1.929m	0.010m	0.000m	0.01
			Dist.	387.755m	0.004m	0.000m	-0.07
B2322	CP1185	CP5176	**Az.**	15°21'33.3691"	0°00'00.5391"	-0°00'00.0049"	-0.02
			ΔHt.	-1.516m	0.012m	-0.001m	-0.10
			Dist.	1261.071m	0.005m	0.001m	0.24
B2203	CP5186	CP5185	**Az.**	254°15'31.3386"	0°00'01.0175"	-0°00'00.1174"	-0.18
			ΔHt.	0.100m	0.010m	0.000m	0.08
			Dist.	1020.662m	0.003m	-0.001m	-0.24
B1589	CP1030	FLGPS 67	**Az.**	52°42'46.6289"	0°00'00.0886"	0°00'00.0158"	0.12
			ΔHt.	-0.466m	0.013m	0.002m	0.14
			Dist.	10239.710m	0.004m	-0.001m	-0.23
B2238	CP1003	CP5206	**Az.**	211°50'09.7958"	0°00'01.2656"	0°00'00.1788"	0.23
			ΔHt.	0.202m	0.012m	-0.001m	-0.09
			Dist.	602.534m	0.005m	0.000m	0.03
B2331	CP5180	CP5177	**Az.**	241°51'52.2245"	0°00'01.9669"	0°00'00.0487"	0.05
			ΔHt.	0.357m	0.008m	-0.001m	-0.15
			Dist.	323.054m	0.003m	0.000m	-0.23
B2062	CP1170	CP1171	**Az.**	90°07'00.8327"	0°00'00.2676"	0°00'00.0472"	0.02
			ΔHt.	0.083m	0.005m	-0.004m	-0.23
			Dist.	1718.486m	0.002m	-0.001m	-0.11
B2231	CP5211	CP5212	**Az.**	269°52'43.4356"	0°00'01.3215"	-0°00'00.0597"	-0.06
			ΔHt.	1.015m	0.021m	0.004m	0.23
			Dist.	1224.033m	0.008m	-0.001m	-0.15

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2272	CP5207	CP5206	**Az.**	223°19'34.7994"	0°00'00.8362"	-0°00'00.1073"	-0.22
			ΔHt.	0.375m	0.012m	0.001m	0.09
			Dist.	974.867m	0.004m	0.000m	0.10
B2319	CP5180	CP5179	**Az.**	103°53'29.7891"	0°00'01.7720"	-0°00'00.0248"	-0.03
			ΔHt.	-0.025m	0.010m	-0.001m	-0.22
			Dist.	417.519m	0.004m	0.000m	0.14
B2303	CP5181	CP5179	**Az.**	134°31'57.3934"	0°00'00.8140"	-0°00'00.0912"	-0.15
			ΔHt.	-0.814m	0.010m	0.001m	0.09
			Dist.	860.663m	0.004m	-0.001m	-0.21
B2359	CP5316	CP5336	**Az.**	181°13'12.0594"	0°00'00.0843"	-0°00'00.0017"	-0.05
			ΔHt.	-0.247m	0.011m	0.001m	0.21
			Dist.	11235.072m	0.004m	0.000m	-0.12
B2298	CP5195	CP5194	**Az.**	100°03'23.2992"	0°00'01.7746"	0°00'00.1585"	0.14
			ΔHt.	-0.426m	0.012m	0.001m	0.06
			Dist.	425.795m	0.004m	0.001m	0.21
B1796	CP1026	CP1029	**Az.**	130°40'14.5498"	0°00'00.1297"	-0°00'00.0352"	-0.21
			ΔHt.	0.617m	0.013m	-0.002m	-0.15
			Dist.	7311.598m	0.005m	0.001m	0.10
B2027	CP1160	CP1159	**Az.**	170°27'49.5579"	0°00'00.3959"	-0°00'00.0601"	-0.19
			ΔHt.	0.114m	0.007m	0.001m	0.14
			Dist.	1258.734m	0.003m	-0.001m	-0.21
B1530	CP1256	CP1253	**Az.**	255°06'39.0488"	0°00'00.2196"	0°00'00.0172"	0.07
			ΔHt.	1.502m	0.019m	-0.001m	-0.21
			Dist.	6562.926m	0.005m	0.000m	-0.09
B2400	CP1068	CP5314	**Az.**	271°09'45.2185"	0°00'00.1553"	0°00'00.0177"	0.20
			ΔHt.	0.257m	0.015m	0.000m	0.01
			Dist.	7732.698m	0.005m	0.000m	-0.08
B2194	CP5165	CP5164	**Az.**	131°51'28.2020"	0°00'00.9435"	0°00'00.1093"	0.20
			ΔHt.	-0.990m	0.008m	0.000m	0.10
			Dist.	577.017m	0.004m	0.000m	0.02
B515	CP1071	CP1069	**Az.**	135°15'16.0468"	0°00'00.4522"	0°00'00.1033"	0.17
			ΔHt.	0.060m	0.028m	-0.019m	-0.20
			Dist.	4245.461m	0.014m	0.009m	0.16
B2243	CP1120	CP5201	**Az.**	222°31'02.6401"	0°00'05.3421"	-0°00'00.5695"	-0.20
			ΔHt.	-0.135m	0.010m	0.001m	0.19
			Dist.	195.578m	0.004m	0.000m	-0.11

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Network Adjustment Report

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2206	CP5231	CP5195	**Az.**	84°23'23.8656"	0°00'00.4991"	0°00'00.0545"	0.20
			ΔHt.	0.128m	0.009m	0.000m	0.02
			Dist.	1509.645m	0.003m	0.000m	-0.19
B2296	CP5200	CP5201	**Az.**	266°42'26.4122"	0°00'02.4175"	0°00'00.0874"	0.05
			ΔHt.	0.330m	0.011m	-0.001m	-0.12
			Dist.	456.804m	0.004m	0.001m	0.20
B362	CP1079	CP1083	**Az.**	302°34'43.2783"	0°00'00.1432"	0°00'00.0040"	0.02
			ΔHt.	-1.390m	0.012m	-0.002m	-0.14
			Dist.	8025.899m	0.005m	0.001m	0.20
B1378	CP1132	CP1133	**Az.**	158°37'00.2930"	0°00'00.2815"	-0°00'00.0267"	-0.19
			ΔHt.	0.097m	0.006m	0.000m	0.08
			Dist.	2100.745m	0.002m	0.000m	0.09
B2000	CP5137	CP5133	**Az.**	188°47'00.1963"	0°00'00.2786"	0°00'00.0191"	0.15
			ΔHt.	1.094m	0.009m	0.000m	0.04
			Dist.	2959.998m	0.003m	0.000m	0.19
B2058	CP1168	CP5144	**Az.**	291°37'11.3114"	0°00'00.5317"	0°00'00.0407"	0.16
			ΔHt.	-1.560m	0.007m	0.001m	0.18
			Dist.	844.975m	0.003m	0.000m	-0.03
B2316	CP5183	CP5182	**Az.**	126°06'25.1586"	0°00'02.7542"	-0°00'00.2739"	-0.18
			ΔHt.	-0.281m	0.008m	0.000m	0.08
			Dist.	213.620m	0.004m	0.000m	0.13
B2051	CP5152	CP5153	**Az.**	65°58'47.3972"	0°00'00.9014"	0°00'00.0740"	0.16
			ΔHt.	-0.346m	0.010m	0.000m	-0.05
			Dist.	789.264m	0.003m	0.000m	-0.18
B2167	CP5163	CP5162	**Az.**	305°21'29.8948"	0°00'01.0360"	-0°00'00.0778"	-0.18
			ΔHt.	0.219m	0.007m	0.000m	0.17
			Dist.	437.901m	0.003m	0.000m	0.08
B1434	CP1120	CP1121	**Az.**	70°54'49.9833"	0°00'01.7110"	0°00'00.4250"	0.15
			ΔHt.	-1.493m	0.036m	-0.001m	-0.02
			Dist.	1929.870m	0.010m	-0.004m	-0.18
B2384	CP5337	CP5338	**Az.**	237°28'37.2937"	0°00'00.8475"	0°00'00.0882"	0.08
			ΔHt.	0.304m	0.036m	-0.002m	-0.05
			Dist.	11995.662m	0.013m	-0.002m	-0.18
B2225	CP5218	CP5219	**Az.**	327°47'57.5565"	0°00'00.8494"	-0°00'00.0676"	-0.18
			ΔHt.	0.362m	0.009m	0.000m	-0.01
			Dist.	909.488m	0.004m	0.000m	0.03

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2185	CP5164	CP5162	**Az.**	276°59'59.1611"	0°00'01.6190"	-0°00'00.1630"	-0.18
			ΔHt.	0.371m	0.008m	0.000m	0.08
			Dist.	362.750m	0.004m	0.000m	0.16
B2037	CP5144	CP5146	**Az.**	270°02'33.2579"	0°00'00.9481"	-0°00'00.0828"	-0.18
			ΔHt.	0.038m	0.008m	0.001m	0.14
			Dist.	568.712m	0.003m	0.000m	0.16
B2113	CP5120	CP5129	**Az.**	350°30'51.3835"	0°00'00.1435"	0°00'00.0096"	0.14
			ΔHt.	0.864m	0.008m	0.000m	0.03
			Dist.	4050.792m	0.003m	0.000m	-0.17
B2137	B 548	CP5121	**Az.**	58°44'03.1184"	0°00'00.7118"	-0°00'00.0250"	-0.06
			ΔHt.	-2.764m	0.025m	-0.003m	-0.17
			Dist.	7085.607m	0.008m	-0.001m	-0.15
B2317	CP5182	CP5184	**Az.**	263°42'45.5810"	0°00'00.6071"	0°00'00.0728"	0.17
			ΔHt.	-0.366m	0.009m	0.000m	-0.04
			Dist.	1388.416m	0.004m	0.000m	-0.10
B978	CP1178	CP1232	**Az.**	338°47'11.4966"	0°00'00.2916"	0°00'00.3807"	0.17
			ΔHt.	0.176m	0.020m	-0.003m	-0.02
			Dist.	4772.033m	0.008m	0.003m	0.05
B1493	CP1240	CP1253	**Az.**	321°55'51.9159"	0°00'00.1162"	0°00'00.0047"	0.08
			ΔHt.	-1.424m	0.009m	-0.001m	-0.12
			Dist.	7090.184m	0.004m	0.000m	0.17
B2417	CP1068	CP5320	**Az.**	309°11'59.1723"	0°00'00.3223"	-0°00'00.0807"	-0.14
			ΔHt.	0.111m	0.027m	0.003m	0.07
			Dist.	7419.067m	0.006m	-0.002m	-0.17
B2304	CP5181	CP5183	**Az.**	341°24'31.7236"	0°00'00.9198"	-0°00'00.0724"	-0.14
			ΔHt.	0.734m	0.008m	0.000m	-0.10
			Dist.	723.153m	0.004m	0.000m	0.17
B2266	CP5215	CP5213	**Az.**	88°27'35.5565"	0°00'02.3092"	0°00'00.1039"	0.12
			ΔHt.	0.493m	0.020m	-0.001m	-0.12
			Dist.	389.397m	0.006m	0.000m	-0.16
B2336	CP1132	CP5124	**Az.**	40°23'39.6819"	0°00'00.1415"	-0°00'00.0158"	-0.12
			ΔHt.	3.413m	0.011m	0.000m	-0.05
			Dist.	7475.659m	0.004m	0.001m	0.16
B2402	CP5314	CP5320	**Az.**	23°34'59.6531"	0°00'00.2444"	0°00'00.0061"	0.03
			ΔHt.	-0.147m	0.025m	-0.003m	-0.16
			Dist.	4946.478m	0.011m	0.001m	0.07

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2035	CP1168	CP5146	**Az.**	282°57'54.8155"	0°00'00.3303"	0°00'00.0253"	0.16
			ΔHt.	-1.522m	0.007m	0.000m	0.11
			Dist.	1389.670m	0.003m	0.000m	-0.03
B2450	CP5307	CP5312	**Az.**	294°47'47.6101"	0°00'00.2448"	0°00'00.0128"	0.10
			ΔHt.	0.842m	0.017m	0.001m	0.16
			Dist.	4533.171m	0.005m	0.000m	-0.01
B2294	CP5205	CP5206	**Az.**	261°48'18.4990"	0°00'01.6735"	0°00'00.1154"	0.12
			ΔHt.	-0.238m	0.012m	0.000m	-0.01
			Dist.	594.397m	0.004m	0.000m	-0.15
B2240	CP5206	CP5202	**Az.**	131°12'50.4325"	0°00'00.8818"	0°00'00.0543"	0.15
			ΔHt.	-0.229m	0.016m	0.001m	0.11
			Dist.	1014.732m	0.004m	0.000m	-0.01
B2292	CP5211	CP5210	**Az.**	223°57'36.7026"	0°00'01.3147"	0°00'00.0273"	0.04
			ΔHt.	0.280m	0.017m	0.001m	0.15
			Dist.	1065.914m	0.006m	0.000m	-0.10
B2073	CP5150	CP5151	**Az.**	33°47'55.4309"	0°00'01.6674"	0°00'00.1010"	0.12
			ΔHt.	0.117m	0.015m	-0.001m	-0.14
			Dist.	542.345m	0.005m	0.000m	0.03
B1479	CP1240	CP1210	**Az.**	273°26'50.0386"	0°00'00.0561"	-0°00'00.0021"	-0.06
			ΔHt.	-0.900m	0.008m	0.001m	0.14
			Dist.	10048.000m	0.004m	0.000m	-0.14
B2295	CP5206	CP5204	**Az.**	112°32'02.4214"	0°00'01.1137"	-0°00'00.0548"	-0.14
			ΔHt.	-0.314m	0.015m	-0.001m	-0.11
			Dist.	764.609m	0.004m	0.000m	0.06
B2147	CP1248	CP1246	**Az.**	93°37'21.4562"	0°00'00.2083"	0°00'00.0037"	0.01
			ΔHt.	-0.759m	0.022m	-0.009m	-0.13
			Dist.	7226.243m	0.007m	0.002m	0.13
B1952	CP5108	CP5109	**Az.**	224°11'28.7001"	0°00'00.8943"	-0°00'00.0076"	-0.02
			ΔHt.	0.701m	0.008m	-0.001m	-0.12
			Dist.	683.576m	0.003m	0.000m	0.13
B589	CORNER AZ	CP1060	**Az.**	235°43'15.3188"	0°00'00.5722"	0°00'00.0710"	0.13
			ΔHt.	-2.788m	0.019m	-0.002m	-0.10
			Dist.	2707.477m	0.009m	0.000m	0.04
B1892	CP1053	CP3003	**Az.**	325°06'54.7910"	0°00'00.2506"	0°00'00.0228"	0.12
			ΔHt.	-3.225m	0.038m	0.001m	0.02
			Dist.	9242.531m	0.012m	0.001m	0.12

Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2163	CP5161	CP5160	**Az.**	272°20'42.9183"	0°00'01.0795"	0°00'00.0256"	0.05
			ΔHt.	0.731m	0.009m	0.001m	0.12
			Dist.	611.419m	0.003m	0.000m	0.03
B2239	CP5204	CP5202	**Az.**	171°21'27.7544"	0°00'02.2369"	-0°00'00.0887"	-0.12
			ΔHt.	0.085m	0.015m	-0.001m	-0.11
			Dist.	379.874m	0.004m	0.000m	-0.08
B883	CP1229	CP1171	**Az.**	144°07'25.1038"	0°00'00.0945"	0°00'00.0139"	0.11
			ΔHt.	-1.983m	0.007m	0.000m	0.02
			Dist.	6732.407m	0.003m	0.000m	-0.06
B2276	CP5199	CP5198	**Az.**	97°35'45.5662"	0°00'01.7196"	-0°00'00.0875"	-0.08
			ΔHt.	-0.551m	0.008m	0.000m	-0.01
			Dist.	662.194m	0.004m	0.000m	-0.11
B2284	CP5187	CP5186	**Az.**	194°13'19.5764"	0°00'03.0848"	0°00'00.1025"	0.08
			ΔHt.	-1.004m	0.008m	0.000m	0.09
			Dist.	230.899m	0.004m	0.000m	-0.11
B2260	CP5226	CP5225	**Az.**	298°55'02.3650"	0°00'00.7680"	0°00'00.0113"	0.03
			ΔHt.	0.343m	0.018m	-0.001m	-0.11
			Dist.	1238.842m	0.005m	0.000m	-0.11
B2235	CP5209	CP5208	**Az.**	225°22'58.2925"	0°00'00.7250"	0°00'00.0379"	0.11
			ΔHt.	0.339m	0.009m	0.000m	0.02
			Dist.	939.036m	0.003m	0.000m	0.05
B1928	CP5116	CP5112	**Az.**	335°53'24.6447"	0°00'00.7781"	-0°00'00.0378"	-0.11
			ΔHt.	0.764m	0.016m	0.000m	-0.06
			Dist.	1759.395m	0.010m	0.000m	0.00
B2264	CP5218	CP5217	**Az.**	359°45'04.6352"	0°00'01.0123"	-0°00'00.0529"	-0.11
			ΔHt.	0.292m	0.009m	0.000m	-0.03
			Dist.	765.060m	0.004m	0.000m	0.02
B2198	CP5174	CP5175	**Az.**	349°24'22.0172"	0°00'03.3892"	0°00'00.0453"	0.04
			ΔHt.	0.684m	0.016m	0.001m	0.11
			Dist.	269.009m	0.006m	0.000m	0.02
B1507	CP1210	CP1253	**Az.**	48°36'53.3900"	0°00'00.1094"	-0°00'00.0057"	-0.10
			ΔHt.	-0.524m	0.009m	0.000m	0.00
			Dist.	7535.910m	0.004m	0.000m	-0.10
B2378	CP5342	CP5338	**Az.**	238°12'29.7630"	0°00'00.2042"	0°00'00.0088"	0.04
			ΔHt.	-0.134m	0.027m	0.002m	0.10
			Dist.	22157.605m	0.009m	0.000m	0.04

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Obs. ID	From Pt.	To Pt.		Observation	A-posteriori Error (1.96σ)	Residual	Stand. Residual
B2169	CP5164	CP5163	**Az.**	180°47'55.5197"	0°00'03.4306"	-0°00'00.1686"	-0.10
			ΔHt.	0.152m	0.007m	0.000m	0.02
			Dist.	209.222m	0.003m	0.000m	0.00
B2280	CP5193	CP5192	**Az.**	144°31'09.2878"	0°00'03.4362"	-0°00'00.0822"	-0.05
			ΔHt.	-0.970m	0.011m	0.000m	0.09
			Dist.	228.586m	0.003m	0.000m	0.05
B2274	CP5203	CP5201	**Az.**	155°20'27.4187"	0°00'01.2717"	0°00'00.0491"	0.07
			ΔHt.	-0.362m	0.011m	-0.001m	-0.09
			Dist.	607.981m	0.005m	0.000m	-0.05
B2196	CP5168	CP5169	**Az.**	57°29'21.5453"	0°00'02.9298"	0°00'00.0094"	0.01
			ΔHt.	-0.605m	0.011m	0.001m	0.08
			Dist.	301.598m	0.004m	0.000m	0.05
B1929	CP1241	CP5112	**Az.**	269°41'01.0772"	0°00'00.5889"	0°00'00.0126"	0.04
			ΔHt.	0.296m	0.016m	0.001m	0.06
			Dist.	3200.964m	0.007m	0.000m	-0.08
B2358	CP5316	CP5302	**Az.**	114°50'21.3221"	0°00'00.1031"	0°00'00.0023"	0.03
			ΔHt.	-1.220m	0.021m	-0.001m	-0.05
			Dist.	19863.085m	0.008m	0.000m	-0.08
B2333	CP5176	CP5177	**Az.**	95°40'17.3821"	0°00'00.7978"	-0°00'00.0074"	-0.02
			ΔHt.	-0.202m	0.012m	0.000m	-0.08
			Dist.	1392.692m	0.003m	0.000m	-0.03
B2197	CP5171	CP5172	**Az.**	32°54'30.1332"	0°00'03.8598"	-0°00'00.0075"	-0.01
			ΔHt.	0.442m	0.011m	0.000m	-0.07
			Dist.	191.584m	0.004m	0.000m	0.00
B945	CP1230	CP1174	**Az.**	149°58'39.4746"	0°00'00.1502"	0°00'00.0160"	0.07
			ΔHt.	-2.217m	0.015m	0.000m	0.00
			Dist.	7699.494m	0.006m	0.000m	0.00
B2254	CP5231	CP5230	**Az.**	10°03'22.9287"	0°00'00.9775"	-0°00'00.0162"	-0.03
			ΔHt.	0.377m	0.011m	0.000m	0.07
			Dist.	792.781m	0.004m	0.000m	0.04
B512	CP1080	CP1082	**Az.**	298°39'09.6230"	0°00'00.2512"	-0°00'00.0024"	-0.02
			ΔHt.	-0.017m	0.008m	0.000m	0.02
			Dist.	3284.845m	0.003m	0.000m	-0.05

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Network Adjustment Report

Geoid Observations

Number of Observations : 502
Number of Outliers : 0

Observation Adjustment (Critical Tau = 4.38). Any outliers are in red.

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3290	CP1056	-24.966m	0.017m	-0.045m	-2.51
G3189	CP1234	-25.592m	0.013m	-0.042m	-2.27
G3321	K 523	-26.116m	0.023m	-0.031m	-1.98
G3355	C 358	-26.039m	0.022m	-0.031m	-1.93
G3365	OKEEPORT RESET	-26.631m	0.022m	-0.031m	-1.90
G3285	CP1053	-25.112m	0.015m	0.034m	1.88
G3222	C 519	-24.427m	0.018m	0.031m	1.79
G3407	R 543	-26.968m	0.019m	0.030m	1.75
G3463	C 547	-26.635m	0.023m	-0.025m	-1.56
G3214	CP1155	-24.799m	0.019m	-0.022m	-1.31
G3219	Q 519	-24.440m	0.018m	0.020m	1.17
G3280	Y 555	-25.141m	0.015m	-0.021m	-1.17
G3471	H 547	-26.534m	0.018m	0.018m	1.04
G3282	CP1205	-24.958m	0.014m	-0.019m	-1.01
G3357	A 518	-25.026m	0.021m	0.016m	0.96
G3210	CP1146	-24.963m	0.010m	0.017m	0.88
G3380	S 191 W	-26.680m	0.020m	0.015m	0.85
G3406	C T2	-27.019m	0.024m	0.013m	0.85
G3216	BRIDGE 2	-24.838m	0.012m	-0.016m	-0.83
G3308	K 518	-24.692m	0.025m	0.012m	0.80
G3226	Q 529	-24.519m	0.014m	0.014m	0.78
G3436	MF 41	-26.201m	0.019m	0.013m	0.78
G3211	872 2625 1	-24.988m	0.011m	0.014m	0.75
G3368	B 529	-25.477m	0.020m	-0.012m	-0.71
G3287	FLGPS 69	-25.018m	0.015m	0.013m	0.70

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3298	CP1051	-25.256m	0.016m	0.012m	0.66
G3289	CP1054	-24.972m	0.015m	0.012m	0.64
G3245	CP1215	-24.729m	0.016m	-0.011m	-0.61
G3276	CORNER AZ	-24.804m	0.019m	-0.010m	-0.58
G3238	Y 530	-24.625m	0.018m	0.010m	0.57
G3253	CP1069	-24.698m	0.022m	-0.009m	-0.55
G3408	EDN 6 25	-26.632m	0.019m	0.009m	0.54
G3195	LO 7	-24.902m	0.014m	-0.010m	-0.52
G3281	Star	-26.021m	0.016m	-0.009m	-0.50
G3303	FISH	-24.520m	0.017m	0.009m	0.49
G3301	D 537	-25.540m	0.017m	0.009m	0.49
G3263	A 524	-24.724m	0.014m	-0.008m	-0.46
G3171	CP1141	-25.174m	0.010m	0.009m	0.45
G3187	S 2 27	-25.037m	0.013m	0.008m	0.43
G3191	C 414	-24.974m	0.010m	-0.008m	-0.40
G3275	CP1059	-24.815m	0.019m	0.007m	0.39
G3439	FLGPS 67	-26.514m	0.018m	0.007m	0.37
G3178	CP1138	-25.427m	0.014m	-0.006m	-0.34
G3234	AIRPORT	-24.596m	0.016m	-0.006m	-0.34
G3479	K 413	-25.645m	0.017m	0.006m	0.34
G3266	CP1058	-24.792m	0.018m	0.005m	0.30
G3310	FLGPS 57	-24.953m	0.015m	0.005m	0.28
G3179	CP1137	-25.633m	0.015m	-0.005m	-0.28
G3246	CP1068	-24.725m	0.016m	-0.005m	-0.28
G3192	CP1211	-24.850m	0.010m	0.005m	0.28
G3173	G 489	-25.341m	0.014m	0.005m	0.25
G3177	LICAN	-25.223m	0.012m	0.004m	0.24
G3268	S 410 X	-24.804m	0.020m	0.002m	0.10
G3291	V 486	-24.942m	0.018m	-0.001m	-0.08
G3257	CP1078	-24.531m	0.016m	-0.001m	-0.07

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3231	CP1087	-24.463m	0.015m	-0.001m	-0.06
G3461	B 548	-26.534m	0.019m	0.001m	0.05
G3396	L 048	-26.545m	0.018m	0.001m	0.04
G3272	Y 535	-24.814m	0.017m	0.000m	0.01
G3356	CP1112	-25.737m	0.039m	0.000m	0.00
G3516	CP5131	-24.738m	0.039m	0.000m	0.00
G3515	CP5132	-24.726m	0.039m	0.000m	0.00
G3522	CP5141	-24.621m	0.039m	0.000m	0.00
G3514	CP5134	-24.730m	0.039m	0.000m	0.00
G3517	CP5137	-24.786m	0.039m	0.000m	0.00
G3518	CP5133	-24.750m	0.039m	0.000m	0.00
G3521	CP5135	-24.820m	0.039m	0.000m	0.00
G3513	CP5104	-25.170m	0.039m	0.000m	0.00
G3519	CP1305	-24.783m	0.039m	0.000m	0.00
G3520	CP5136	-24.827m	0.039m	0.000m	0.00
G3551	CP5159	-26.351m	0.039m	0.000m	0.00
G3550	CP5158	-26.305m	0.039m	0.000m	0.00
G3549	CP5157	-26.282m	0.039m	0.000m	0.00
G3548	CP5156	-26.222m	0.039m	0.000m	0.00
G3547	CP5127	-26.059m	0.039m	0.000m	0.00
G3546	CP5128	-26.123m	0.039m	0.000m	0.00
G3545	CP5121	-26.917m	0.039m	0.000m	0.00
G3544	CP5123	-26.461m	0.039m	0.000m	0.00
G3543	CP5122	-26.624m	0.039m	0.000m	0.00
G3542	CP5130	-26.011m	0.039m	0.000m	0.00
G3541	CP5129	-25.667m	0.039m	0.000m	0.00
G3540	CP5120	-25.599m	0.039m	0.000m	0.00
G3539	CP5155	-25.265m	0.039m	0.000m	0.00
G3538	CP5153	-25.158m	0.039m	0.000m	0.00
G3537	CP5154	-25.220m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3536	CP5151	-25.106m	0.039m	0.000m	0.00
G3535	CP5150	-25.083m	0.039m	0.000m	0.00
G3534	CP5152	-25.126m	0.039m	0.000m	0.00
G3533	CP5149	-25.023m	0.039m	0.000m	0.00
G3532	CP5147	-24.990m	0.039m	0.000m	0.00
G3531	CP5148	-25.015m	0.039m	0.000m	0.00
G3530	CP5144	-24.883m	0.039m	0.000m	0.00
G3529	CP5145	-24.926m	0.039m	0.000m	0.00
G3528	CP5146	-24.871m	0.039m	0.000m	0.00
G3527	CP5139	-24.602m	0.039m	0.000m	0.00
G3526	CP5142	-24.660m	0.039m	0.000m	0.00
G3525	CP5140	-24.635m	0.039m	0.000m	0.00
G3524	CP5143	-24.651m	0.039m	0.000m	0.00
G3523	CP5138	-24.605m	0.039m	0.000m	0.00
G3481	CP1035	-26.393m	0.039m	0.000m	0.00
G3480	CP1031	-26.194m	0.039m	0.000m	0.00
G3478	CP2009	-24.849m	0.039m	0.000m	0.00
G3477	CP2005	-24.795m	0.039m	0.000m	0.00
G3476	CP2000	-24.815m	0.039m	0.000m	0.00
G3475	CP1206	-25.893m	0.039m	0.000m	0.00
G3474	CP1028	-25.981m	0.039m	0.000m	0.00
G3473	CP1023	-26.166m	0.039m	0.000m	0.00
G3472	CP1026	-26.072m	0.039m	0.000m	0.00
G3470	CP1024	-26.296m	0.039m	0.000m	0.00
G3469	CP1027	-26.026m	0.039m	0.000m	0.00
G3468	CP1191	-25.992m	0.039m	0.000m	0.00
G3467	CP1136	-25.947m	0.039m	0.000m	0.00
G3466	CP1245	-25.823m	0.039m	0.000m	0.00
G3465	CP1194	-25.715m	0.039m	0.000m	0.00
G3464	CP1025	-26.183m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3462	CP1036	-26.205m	0.039m	0.000m	0.00
G3460	CP1249	-25.892m	0.039m	0.000m	0.00
G3459	CP1040	-26.129m	0.039m	0.000m	0.00
G3458	CP1032	-26.246m	0.039m	0.000m	0.00
G3457	CP1049	-25.632m	0.039m	0.000m	0.00
G3456	CP1047	-25.749m	0.039m	0.000m	0.00
G3455	CP1044	-25.955m	0.039m	0.000m	0.00
G3454	CP1037	-26.336m	0.039m	0.000m	0.00
G3453	CP1048	-25.683m	0.039m	0.000m	0.00
G3452	CP1235	-25.536m	0.039m	0.000m	0.00
G3451	CP1239	-25.803m	0.039m	0.000m	0.00
G3450	CP1043	-26.021m	0.039m	0.000m	0.00
G3449	CP1038	-26.205m	0.039m	0.000m	0.00
G3448	CP1034	-26.388m	0.039m	0.000m	0.00
G3447	CP1030	-26.094m	0.039m	0.000m	0.00
G3512	CP5111	-25.100m	0.039m	0.000m	0.00
G3511	CP5113	-25.088m	0.039m	0.000m	0.00
G3510	CP5118	-25.065m	0.039m	0.000m	0.00
G3509	CP5115	-25.074m	0.039m	0.000m	0.00
G3508	CP5110	-25.053m	0.039m	0.000m	0.00
G3507	CP5119	-25.134m	0.039m	0.000m	0.00
G3506	CP5109	-25.071m	0.039m	0.000m	0.00
G3505	CP5108	-25.084m	0.039m	0.000m	0.00
G3504	CP5117	-25.067m	0.039m	0.000m	0.00
G3503	CP5114B	-25.065m	0.039m	0.000m	0.00
G3502	CP5114A	-25.057m	0.039m	0.000m	0.00
G3501	CP5106	-25.046m	0.039m	0.000m	0.00
G3500	CP5105	-25.054m	0.039m	0.000m	0.00
G3499	CP5107	-25.050m	0.039m	0.000m	0.00
G3498	CP5103	-25.042m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3497	CP5101	-25.034m	0.039m	0.000m	0.00
G3496	CP5102	-25.022m	0.039m	0.000m	0.00
G3495	CP5112	-25.098m	0.039m	0.000m	0.00
G3494	CP5116	-25.085m	0.039m	0.000m	0.00
G3493	CP3001	-25.647m	0.039m	0.000m	0.00
G3492	CP3010	-24.761m	0.039m	0.000m	0.00
G3491	CP3008	-24.826m	0.039m	0.000m	0.00
G3490	CP3002	-25.393m	0.039m	0.000m	0.00
G3489	CP3006	-24.940m	0.039m	0.000m	0.00
G3488	CP3005	-24.932m	0.039m	0.000m	0.00
G3487	CP3003	-25.128m	0.039m	0.000m	0.00
G3486	CP3004	-25.122m	0.039m	0.000m	0.00
G3485	CP3000	-25.992m	0.039m	0.000m	0.00
G3484	CP1045	-25.903m	0.039m	0.000m	0.00
G3483	CP1195	-25.880m	0.039m	0.000m	0.00
G3482	CP1039	-26.174m	0.039m	0.000m	0.00
G3639	CP5340	-24.928m	0.039m	0.000m	0.00
G3638	CP5336	-24.873m	0.039m	0.000m	0.00
G3637	CP5334	-24.997m	0.039m	0.000m	0.00
G3636	CP5339	-24.968m	0.039m	0.000m	0.00
G3635	CP5316	-24.940m	0.039m	0.000m	0.00
G3634	CP5338	-25.032m	0.039m	0.000m	0.00
G3633	CP5337	-25.252m	0.039m	0.000m	0.00
G3632	CP5342	-25.530m	0.039m	0.000m	0.00
G3631	CP5301	-25.367m	0.039m	0.000m	0.00
G3630	CP5343	-25.575m	0.039m	0.000m	0.00
G3629	CP5341	-25.197m	0.039m	0.000m	0.00
G3628	CP5300	-26.032m	0.039m	0.000m	0.00
G3627	CP5345	-26.799m	0.039m	0.000m	0.00
G3626	CP5176	-26.569m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3625	CP5124	-26.704m	0.039m	0.000m	0.00
G3624	CP5126	-26.652m	0.039m	0.000m	0.00
G3623	CP5125	-26.612m	0.039m	0.000m	0.00
G3622	CP5178	-26.603m	0.039m	0.000m	0.00
G3621	CP5177	-26.597m	0.039m	0.000m	0.00
G3620	CP5184	-26.581m	0.039m	0.000m	0.00
G3619	CP5180	-26.605m	0.039m	0.000m	0.00
G3618	CP5183	-26.609m	0.039m	0.000m	0.00
G3617	CP5179	-26.611m	0.039m	0.000m	0.00
G3616	CP5181	-26.606m	0.039m	0.000m	0.00
G3615	CP5182	-26.611m	0.039m	0.000m	0.00
G3614	CP5193	-26.631m	0.039m	0.000m	0.00
G3613	CP5192	-26.633m	0.039m	0.000m	0.00
G3612	CP5194	-26.624m	0.039m	0.000m	0.00
G3611	CP5196	-26.638m	0.039m	0.000m	0.00
G3669	CP5311	-24.798m	0.039m	0.000m	0.00
G3668	CP5309	-24.798m	0.039m	0.000m	0.00
G3667	CP5310	-24.799m	0.039m	0.000m	0.00
G3666	CP5308	-24.813m	0.039m	0.000m	0.00
G3665	CP5305	-24.796m	0.039m	0.000m	0.00
G3664	CP5312	-24.807m	0.039m	0.000m	0.00
G3663	CP5307	-24.816m	0.039m	0.000m	0.00
G3662	CP5304	-24.793m	0.039m	0.000m	0.00
G3661	CP5303	-24.790m	0.039m	0.000m	0.00
G3660	CP5313	-24.751m	0.039m	0.000m	0.00
G3659	CP5306	-24.802m	0.039m	0.000m	0.00
G3658	CP5324	-24.631m	0.039m	0.000m	0.00
G3657	CP5323	-24.628m	0.039m	0.000m	0.00
G3656	CP5319	-24.676m	0.039m	0.000m	0.00
G3655	CP5321	-24.647m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3654	CP5320	-24.651m	0.039m	0.000m	0.00
G3653	CP5322	-24.617m	0.039m	0.000m	0.00
G3652	CP5314	-24.675m	0.039m	0.000m	0.00
G3651	CP5326	-24.733m	0.039m	0.000m	0.00
G3650	CP5318	-24.702m	0.039m	0.000m	0.00
G3649	CP5315	-24.750m	0.039m	0.000m	0.00
G3648	CP5331	-24.614m	0.039m	0.000m	0.00
G3647	CP5332	-24.645m	0.039m	0.000m	0.00
G3646	CP5329	-24.671m	0.039m	0.000m	0.00
G3645	CP5330	-24.587m	0.039m	0.000m	0.00
G3644	CP5328	-24.716m	0.039m	0.000m	0.00
G3643	CP5317	-24.826m	0.039m	0.000m	0.00
G3642	CP5327	-24.822m	0.039m	0.000m	0.00
G3641	CP5333	-24.921m	0.039m	0.000m	0.00
G3640	CP5302	-25.057m	0.039m	0.000m	0.00
G3580	CP5228	-26.579m	0.039m	0.000m	0.00
G3579	CP5229	-26.554m	0.039m	0.000m	0.00
G3578	CP5230	-26.591m	0.039m	0.000m	0.00
G3577	CP5227	-26.578m	0.039m	0.000m	0.00
G3576	CP5195	-26.616m	0.039m	0.000m	0.00
G3575	CP5231	-26.583m	0.039m	0.000m	0.00
G3574	CP5187	-26.623m	0.039m	0.000m	0.00
G3573	CP5185	-26.598m	0.039m	0.000m	0.00
G3572	CP5186	-26.620m	0.039m	0.000m	0.00
G3571	CP5189	-26.627m	0.039m	0.000m	0.00
G3570	CP5188	-26.627m	0.039m	0.000m	0.00
G3569	CP5191	-26.618m	0.039m	0.000m	0.00
G3568	CP5190	-26.629m	0.039m	0.000m	0.00
G3567	CP5174	-26.481m	0.039m	0.000m	0.00
G3566	CP5175	-26.485m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3565	CP5172	-26.452m	0.039m	0.000m	0.00
G3564	CP5171	-26.445m	0.039m	0.000m	0.00
G3563	CP5173	-26.467m	0.039m	0.000m	0.00
G3562	CP5168	-26.426m	0.039m	0.000m	0.00
G3561	CP5169	-26.436m	0.039m	0.000m	0.00
G3560	CP5170	-26.443m	0.039m	0.000m	0.00
G3559	CP5167	-26.407m	0.039m	0.000m	0.00
G3558	CP5166	-26.391m	0.039m	0.000m	0.00
G3557	CP5164	-26.398m	0.039m	0.000m	0.00
G3556	CP5165	-26.397m	0.039m	0.000m	0.00
G3555	CP5163	-26.392m	0.039m	0.000m	0.00
G3554	CP5160	-26.366m	0.039m	0.000m	0.00
G3553	CP5162	-26.390m	0.039m	0.000m	0.00
G3552	CP5161	-26.381m	0.039m	0.000m	0.00
G3610	CP5198	-26.637m	0.039m	0.000m	0.00
G3609	CP5197	-26.626m	0.039m	0.000m	0.00
G3608	CP5199	-26.625m	0.039m	0.000m	0.00
G3607	CP5201	-26.630m	0.039m	0.000m	0.00
G3606	CP5200	-26.640m	0.039m	0.000m	0.00
G3605	CP5203	-26.628m	0.039m	0.000m	0.00
G3604	CP5202	-26.642m	0.039m	0.000m	0.00
G3603	CP5204	-26.642m	0.039m	0.000m	0.00
G3602	CP5206	-26.628m	0.039m	0.000m	0.00
G3601	CP5205	-26.640m	0.039m	0.000m	0.00
G3600	CP5209	-26.645m	0.039m	0.000m	0.00
G3599	CP5208	-26.630m	0.039m	0.000m	0.00
G3598	CP5207	-26.643m	0.039m	0.000m	0.00
G3597	CP5211	-26.647m	0.039m	0.000m	0.00
G3596	CP5210	-26.632m	0.039m	0.000m	0.00
G3595	CP5212	-26.622m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3594	CP5215	-26.600m	0.039m	0.000m	0.00
G3593	CP5213	-26.608m	0.039m	0.000m	0.00
G3592	CP5214	-26.609m	0.039m	0.000m	0.00
G3591	CP5218	-26.590m	0.039m	0.000m	0.00
G3590	CP5216	-26.600m	0.039m	0.000m	0.00
G3589	CP5217	-26.590m	0.039m	0.000m	0.00
G3588	CP5220	-26.578m	0.039m	0.000m	0.00
G3587	CP5219	-26.579m	0.039m	0.000m	0.00
G3586	CP5221	-26.568m	0.039m	0.000m	0.00
G3585	CP5225	-26.474m	0.039m	0.000m	0.00
G3584	CP5226	-26.499m	0.039m	0.000m	0.00
G3583	CP5223	-26.537m	0.039m	0.000m	0.00
G3582	CP5224	-26.534m	0.039m	0.000m	0.00
G3581	CP5222	-26.567m	0.039m	0.000m	0.00
G3283	CP1208	-24.874m	0.039m	0.000m	0.00
G3279	CP1250	-25.007m	0.039m	0.000m	0.00
G3278	CP1201	-25.018m	0.039m	0.000m	0.00
G3277	CP1243	-24.797m	0.039m	0.000m	0.00
G3274	CP1065	-24.780m	0.039m	0.000m	0.00
G3273	CP1066	-24.766m	0.039m	0.000m	0.00
G3271	CP1063	-24.803m	0.039m	0.000m	0.00
G3270	CP1060	-24.798m	0.039m	0.000m	0.00
G3269	CP1240	-24.823m	0.039m	0.000m	0.00
G3267	CP1061	-24.788m	0.039m	0.000m	0.00
G3265	CP1207	-24.886m	0.039m	0.000m	0.00
G3264	CP1057	-24.846m	0.039m	0.000m	0.00
G3262	CP1086	-24.450m	0.039m	0.000m	0.00
G3261	CP1221	-24.564m	0.039m	0.000m	0.00
G3260	CP1080	-24.474m	0.039m	0.000m	0.00
G3259	CP1071	-24.652m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3258	FDEM-BC1	-24.812m	0.039m	0.000m	0.00
G3256	CP1081	-24.470m	0.039m	0.000m	0.00
G3255	CP1074	-24.593m	0.039m	0.000m	0.00
G3254	CP1072	-24.639m	0.039m	0.000m	0.00
G3252	CP1210	-24.780m	0.039m	0.000m	0.00
G3251	CP1082	-24.456m	0.039m	0.000m	0.00
G3250	CP1070	-24.679m	0.039m	0.000m	0.00
G3249	CP1067	-24.742m	0.039m	0.000m	0.00
G3248	CP1077	-24.539m	0.039m	0.000m	0.00
G3247	CP1073	-24.612m	0.039m	0.000m	0.00
G3244	CP1216	-24.767m	0.039m	0.000m	0.00
G3322	CP1101	-24.708m	0.039m	0.000m	0.00
G3320	CP1176	-25.588m	0.039m	0.000m	0.00
G3319	CP1172	-25.137m	0.039m	0.000m	0.00
G3318	CP1227	-24.874m	0.039m	0.000m	0.00
G3317	CP1225	-24.708m	0.039m	0.000m	0.00
G3316	CP1181	-26.258m	0.039m	0.000m	0.00
G3315	CP1177	-25.725m	0.039m	0.000m	0.00
G3314	CP1178	-25.882m	0.039m	0.000m	0.00
G3313	CP1174	-25.311m	0.039m	0.000m	0.00
G3312	CP1173	-25.217m	0.039m	0.000m	0.00
G3311	CP1171	-25.046m	0.039m	0.000m	0.00
G3309	CP1102	-24.809m	0.039m	0.000m	0.00
G3307	CP1182	-26.344m	0.039m	0.000m	0.00
G3306	CP1233	-26.221m	0.039m	0.000m	0.00
G3305	CP1163	-24.693m	0.039m	0.000m	0.00
G3304	CP1097	-24.548m	0.039m	0.000m	0.00
G3302	FDEM-BC2	-24.812m	0.039m	0.000m	0.00
G3300	CP1050	-25.577m	0.039m	0.000m	0.00
G3299	FDEM-PS5	-25.580m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3297	CP1236	-25.196m	0.039m	0.000m	0.00
G3296	CP1202	-25.039m	0.039m	0.000m	0.00
G3295	CP1237	-24.938m	0.039m	0.000m	0.00
G3294	CP1212	-24.825m	0.039m	0.000m	0.00
G3293	CP1052	-25.183m	0.039m	0.000m	0.00
G3292	FDEM-S7	-24.923m	0.039m	0.000m	0.00
G3288	CP1199	-25.124m	0.039m	0.000m	0.00
G3286	CP1055	-25.057m	0.039m	0.000m	0.00
G3284	CP1203	-24.926m	0.039m	0.000m	0.00
G3205	CP1157	-24.708m	0.039m	0.000m	0.00
G3204	CP1218	-24.697m	0.039m	0.000m	0.00
G3203	CP1222	-24.606m	0.039m	0.000m	0.00
G3202	CP1147	-24.972m	0.039m	0.000m	0.00
G3201	CP1150	-24.898m	0.039m	0.000m	0.00
G3200	CP1304-PA1	-24.819m	0.039m	0.000m	0.00
G3199	CP1219	-24.695m	0.039m	0.000m	0.00
G3198	CP1303-PA1	-24.850m	0.039m	0.000m	0.00
G3197	CP1148	-24.956m	0.039m	0.000m	0.00
G3196	CP1151	-24.865m	0.039m	0.000m	0.00
G3194	CP1305-PA1	-24.783m	0.039m	0.000m	0.00
G3193	CP1153	-24.815m	0.039m	0.000m	0.00
G3190	CP1197	-25.290m	0.039m	0.000m	0.00
G3188	CP1193	-25.477m	0.039m	0.000m	0.00
G3186	FDEM-PB1	-25.151m	0.039m	0.000m	0.00
G3185	CP1192	-25.650m	0.039m	0.000m	0.00
G3184	CP1241	-25.141m	0.039m	0.000m	0.00
G3183	700-93-06-B08	-25.589m	0.039m	0.000m	0.00
G3182	CP1247	-25.299m	0.039m	0.000m	0.00
G3181	CP1145	-25.004m	0.039m	0.000m	0.00
G3180	CP1140	-25.215m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3176	CP1142	-25.142m	0.039m	0.000m	0.00
G3175	CP1144	-25.050m	0.039m	0.000m	0.00
G3174	CP1139	-25.287m	0.039m	0.000m	0.00
G3172	CP1198	-25.127m	0.039m	0.000m	0.00
G3170	CP1143	-25.106m	0.039m	0.000m	0.00
G3169	CP1200	-25.023m	0.039m	0.000m	0.00
G3168	CP1204	-24.958m	0.039m	0.000m	0.00
G3243	CP1220	-24.619m	0.039m	0.000m	0.00
G3242	CP1217	-24.718m	0.039m	0.000m	0.00
G3241	CP1076	-24.545m	0.039m	0.000m	0.00
G3240	CP1079	-24.501m	0.039m	0.000m	0.00
G3239	CP1075	-24.570m	0.039m	0.000m	0.00
G3237	CP1224	-24.527m	0.039m	0.000m	0.00
G3236	CP1159	-24.651m	0.039m	0.000m	0.00
G3235	CP1091	-24.532m	0.039m	0.000m	0.00
G3233	CP1088	-24.467m	0.039m	0.000m	0.00
G3232	CP1084	-24.454m	0.039m	0.000m	0.00
G3230	CP1083	-24.454m	0.039m	0.000m	0.00
G3229	CP1160	-24.666m	0.039m	0.000m	0.00
G3228	CP1223	-24.511m	0.039m	0.000m	0.00
G3227	CP1158	-24.688m	0.039m	0.000m	0.00
G3225	CP1161	-24.644m	0.039m	0.000m	0.00
G3224	CP1089	-24.481m	0.039m	0.000m	0.00
G3223	CP1242	-24.482m	0.039m	0.000m	0.00
G3221	CP1090	-24.515m	0.039m	0.000m	0.00
G3220	CP1085	-24.454m	0.039m	0.000m	0.00
G3218	CP1213	-24.773m	0.039m	0.000m	0.00
G3217	CP1156	-24.771m	0.039m	0.000m	0.00
G3215	CP1301-PA1	-24.796m	0.039m	0.000m	0.00
G3213	CP1209	-24.914m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3212	CP1152	-24.837m	0.039m	0.000m	0.00
G3209	CP1149	-24.932m	0.039m	0.000m	0.00
G3208	CP1302-PA1	-24.814m	0.039m	0.000m	0.00
G3207	CP1214	-24.776m	0.039m	0.000m	0.00
G3206	CP1154	-24.758m	0.039m	0.000m	0.00
G3416	CP1015	-26.731m	0.039m	0.000m	0.00
G3415	CP1014	-26.732m	0.039m	0.000m	0.00
G3414	CP1018	-26.747m	0.039m	0.000m	0.00
G3413	CP1012	-26.804m	0.039m	0.000m	0.00
G3412	CP1135	-26.143m	0.039m	0.000m	0.00
G3411	CP1133	-26.374m	0.039m	0.000m	0.00
G3410	CP1008	-26.774m	0.039m	0.000m	0.00
G3409	CP1002	-26.716m	0.039m	0.000m	0.00
G3405	CP1004	-26.763m	0.039m	0.000m	0.00
G3404	CP1006	-26.761m	0.039m	0.000m	0.00
G3403	CP1017	-26.732m	0.039m	0.000m	0.00
G3402	CP1020	-26.586m	0.039m	0.000m	0.00
G3401	CP1011	-26.782m	0.039m	0.000m	0.00
G3400	CP1121	-26.671m	0.039m	0.000m	0.00
G3399	CP1019	-26.617m	0.039m	0.000m	0.00
G3398	CP1134	-26.252m	0.039m	0.000m	0.00
G3397	CP1132	-26.438m	0.039m	0.000m	0.00
G3395	CP1131	-26.489m	0.039m	0.000m	0.00
G3394	CP1128	-26.664m	0.039m	0.000m	0.00
G3393	CP1010	-26.762m	0.039m	0.000m	0.00
G3392	CP1007	-26.774m	0.039m	0.000m	0.00
G3391	CP1016	-26.721m	0.039m	0.000m	0.00
G3390	CP1188	-26.734m	0.039m	0.000m	0.00
G3389	CP1021	-26.513m	0.039m	0.000m	0.00
G3388	CP1190	-26.402m	0.039m	0.000m	0.00

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Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3387	CP1124	-26.699m	0.039m	0.000m	0.00
G3386	CP1123	-26.666m	0.039m	0.000m	0.00
G3385	CP1129	-26.628m	0.039m	0.000m	0.00
G3446	CP1196	-25.331m	0.039m	0.000m	0.00
G3445	CP1046	-25.808m	0.039m	0.000m	0.00
G3444	CP1238	-26.008m	0.039m	0.000m	0.00
G3443	CP1042	-26.049m	0.039m	0.000m	0.00
G3442	CP1246	-26.108m	0.039m	0.000m	0.00
G3441	CP1248	-25.960m	0.039m	0.000m	0.00
G3440	CP1033	-26.274m	0.039m	0.000m	0.00
G3438	CP1029	-26.023m	0.039m	0.000m	0.00
G3437	CP1041	-26.092m	0.039m	0.000m	0.00
G3435	CP1062	-24.803m	0.039m	0.000m	0.00
G3434	CP1261	-24.867m	0.039m	0.000m	0.00
G3433	CP1064	-24.795m	0.039m	0.000m	0.00
G3432	CP1256	-24.852m	0.039m	0.000m	0.00
G3431	CP1258	-24.906m	0.039m	0.000m	0.00
G3430	CP1254	-24.787m	0.039m	0.000m	0.00
G3429	CP1253	-24.805m	0.039m	0.000m	0.00
G3428	CP1251	-24.791m	0.039m	0.000m	0.00
G3427	CP1262	-24.729m	0.039m	0.000m	0.00
G3426	CP1255	-24.846m	0.039m	0.000m	0.00
G3425	CP1259	-24.955m	0.039m	0.000m	0.00
G3424	CP1257	-24.905m	0.039m	0.000m	0.00
G3423	CP1252	-24.793m	0.039m	0.000m	0.00
G3422	CP1260	-24.813m	0.039m	0.000m	0.00
G3421	CP1005	-26.776m	0.039m	0.000m	0.00
G3420	CP1022	-26.374m	0.039m	0.000m	0.00
G3419	CP1013	-26.791m	0.039m	0.000m	0.00
G3418	CP1009	-26.771m	0.039m	0.000m	0.00

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

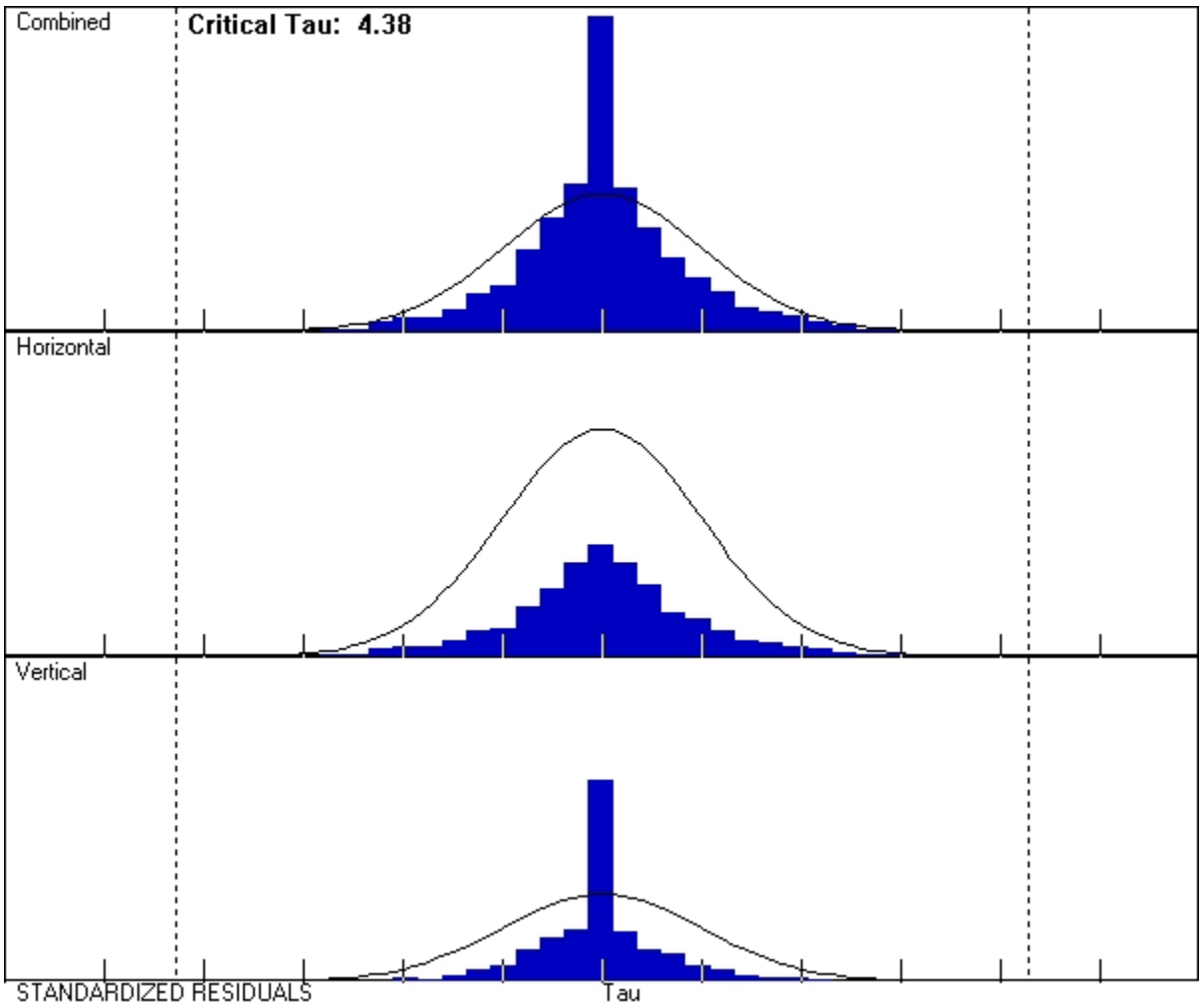
Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3417	CP1189	-26.639m	0.039m	0.000m	0.00
G3350	CP1096	-24.540m	0.039m	0.000m	0.00
G3349	CP1091a	-24.533m	0.039m	0.000m	0.00
G3348	CP1230	-25.418m	0.039m	0.000m	0.00
G3347	CP1169	-24.944m	0.039m	0.000m	0.00
G3346	CP1165	-24.769m	0.039m	0.000m	0.00
G3345	CP1093	-24.596m	0.039m	0.000m	0.00
G3344	CP1100	-24.666m	0.039m	0.000m	0.00
G3343	CP1244	-24.870m	0.039m	0.000m	0.00
G3342	CP1168	-24.893m	0.039m	0.000m	0.00
G3341	CP1162	-24.654m	0.039m	0.000m	0.00
G3340	CP1103	-24.848m	0.039m	0.000m	0.00
G3339	CP1175	-25.455m	0.039m	0.000m	0.00
G3338	CP1170	-25.000m	0.039m	0.000m	0.00
G3337	CP1166	-24.793m	0.039m	0.000m	0.00
G3336	CP1099	-24.612m	0.039m	0.000m	0.00
G3335	CP1104	-25.016m	0.039m	0.000m	0.00
G3334	CP1109	-25.286m	0.039m	0.000m	0.00
G3333	CP1180	-26.157m	0.039m	0.000m	0.00
G3332	CP1179	-26.019m	0.039m	0.000m	0.00
G3331	CP1229	-25.105m	0.039m	0.000m	0.00
G3330	CP1092	-24.596m	0.039m	0.000m	0.00
G3329	CP1226	-24.661m	0.039m	0.000m	0.00
G3328	CP1228	-24.988m	0.039m	0.000m	0.00
G3327	CP1111	-25.407m	0.039m	0.000m	0.00
G3326	CP1167	-24.856m	0.039m	0.000m	0.00
G3325	CP1232	-25.970m	0.039m	0.000m	0.00
G3324	CP1094	-24.539m	0.039m	0.000m	0.00
G3323	CP1098	-24.579m	0.039m	0.000m	0.00
G3384	CP1130	-26.560m	0.039m	0.000m	0.00

HHD-FDEM LiDAR Support (E07066)

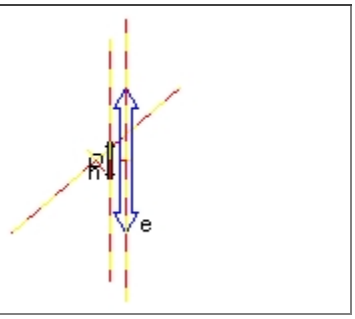
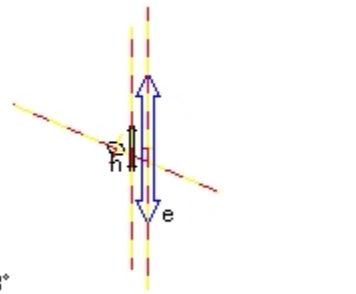
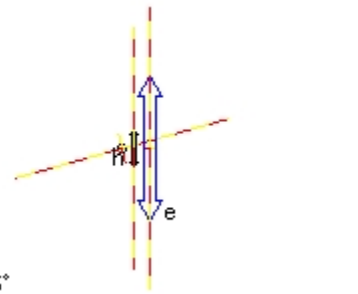
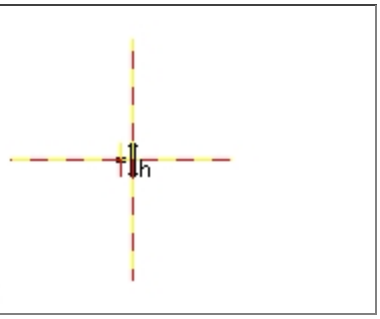
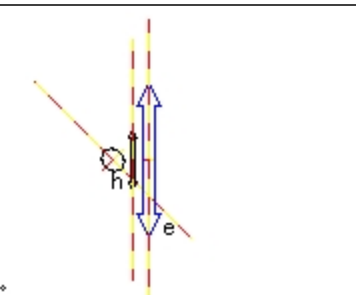
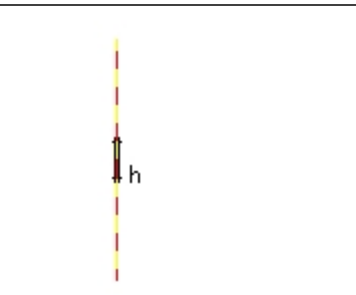
Network Adjustment Report

Observation ID	Point Name	Separation	A-posteriori Error (1.96σ)	Residual	Standardized Residual
G3383	CP1126	-26.703m	0.039m	0.000m	0.00
G3382	CP1127	-26.689m	0.039m	0.000m	0.00
G3381	CP1125	-26.713m	0.039m	0.000m	0.00
G3379	CP1184	-26.477m	0.039m	0.000m	0.00
G3378	CP1003	-26.636m	0.039m	0.000m	0.00
G3377	CP1105	-25.114m	0.039m	0.000m	0.00
G3376	CP1122	-26.590m	0.039m	0.000m	0.00
G3375	CP1120	-26.634m	0.039m	0.000m	0.00
G3374	CP1183	-26.392m	0.039m	0.000m	0.00
G3373	CP1116	-26.275m	0.039m	0.000m	0.00
G3372	CP1107	-25.199m	0.039m	0.000m	0.00
G3371	CP1113	-25.903m	0.039m	0.000m	0.00
G3370	CP1117	-26.388m	0.039m	0.000m	0.00
G3369	CP1119	-26.566m	0.039m	0.000m	0.00
G3367	CP1108	-25.311m	0.039m	0.000m	0.00
G3366	CP1001	-26.722m	0.039m	0.000m	0.00
G3364	CP1186	-26.198m	0.039m	0.000m	0.00
G3363	CP1114	-26.083m	0.039m	0.000m	0.00
G3362	CP1115	-26.130m	0.039m	0.000m	0.00
G3361	CP1187	-26.447m	0.039m	0.000m	0.00
G3360	CP1185	-26.544m	0.039m	0.000m	0.00
G3359	CP1118	-26.480m	0.039m	0.000m	0.00
G3358	CP1106	-25.226m	0.039m	0.000m	0.00
G3354	CP1110	-25.560m	0.039m	0.000m	0.00
G3353	CP1231	-25.728m	0.039m	0.000m	0.00
G3352	CP1164	-24.715m	0.039m	0.000m	0.00
G3351	CP1095	-24.513m	0.039m	0.000m	0.00

Histograms of Standardized Residuals



Point Error Ellipses

CP1204	CP1200	CP1143
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
CP1141	**CP1198**	**G 489**
		
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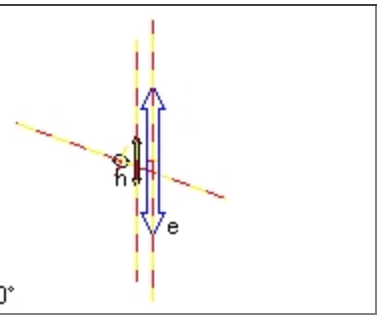
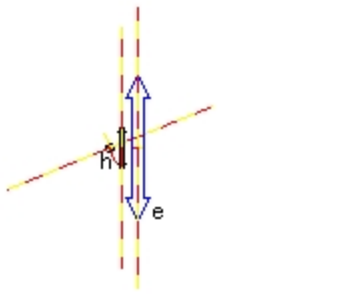
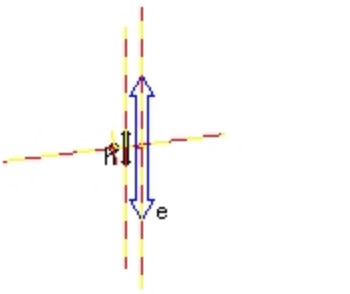
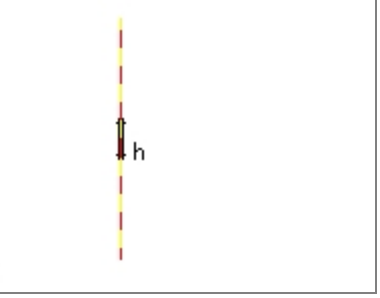
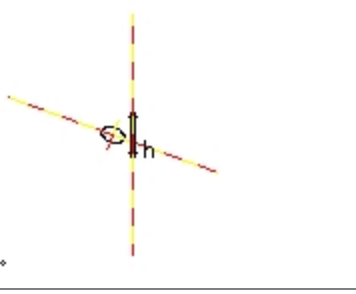
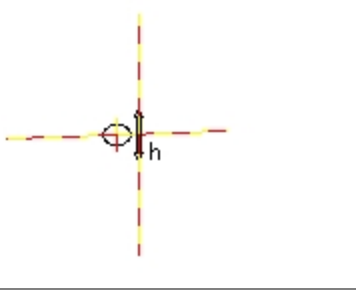
CP1139	**CP1144**	**CP1142**
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
LICAN	**CP1138**	**CP1137**
		
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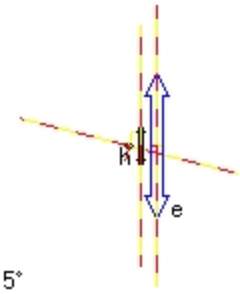
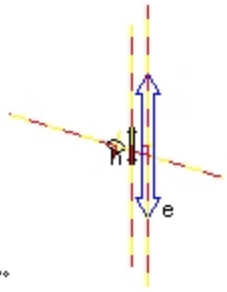
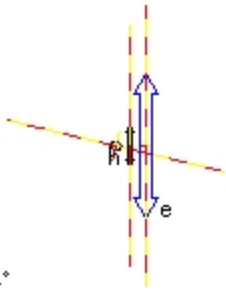
CP1140	CP1145	CP1247
		
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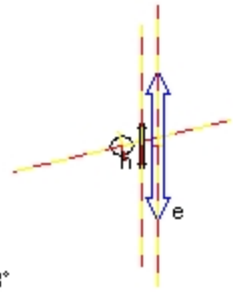	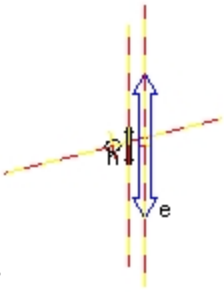	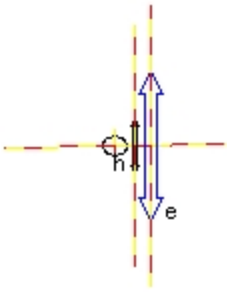
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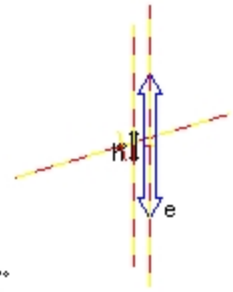
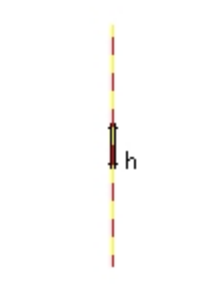
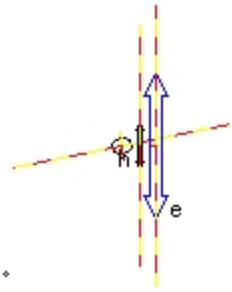
FDEM-PB1	**S 2 27**	**CP1193**
		
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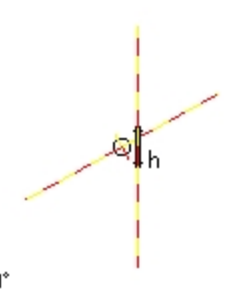
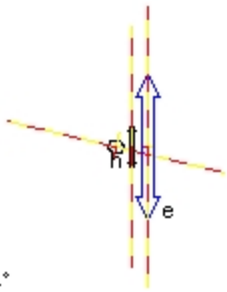
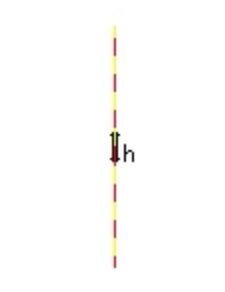
CP1234	**CP1197**	**C 414**
		
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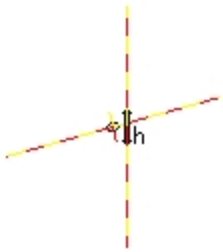
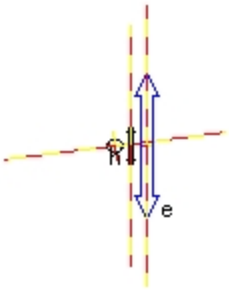
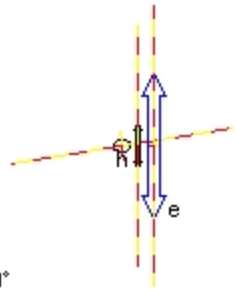
CP1211	CP1153	CP1305-PA1
		
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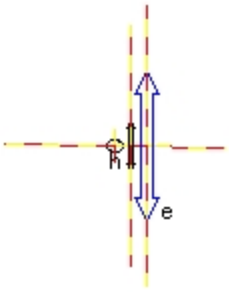
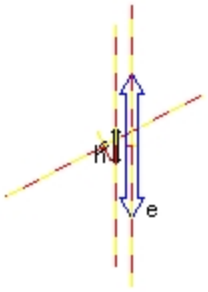
LO 7	**CP1151**	**CP1148**
		
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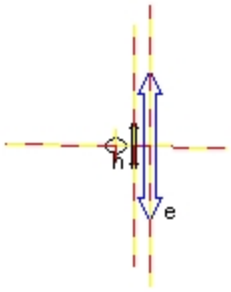	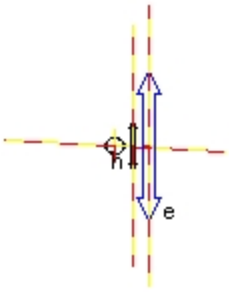	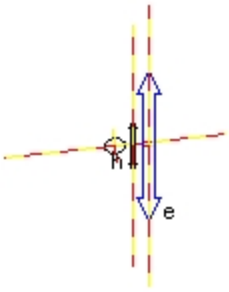
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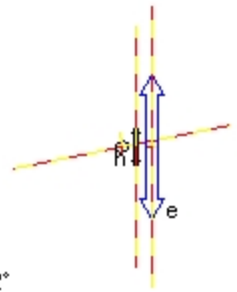
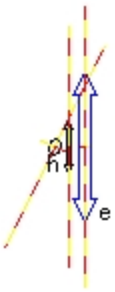
CP1150	**CP1147**	**CP1222**
		
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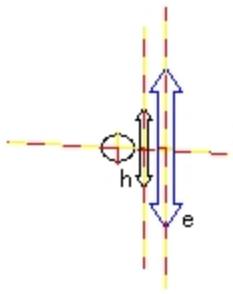
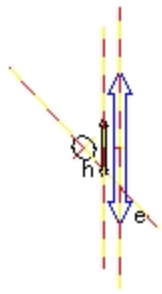
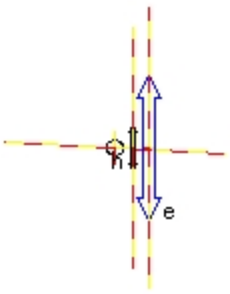
CP1218	CP1157	CP1154
		
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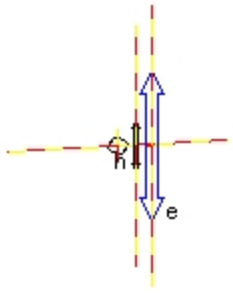	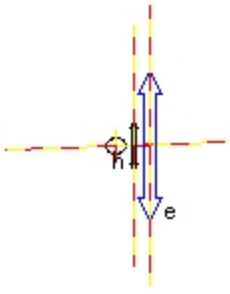	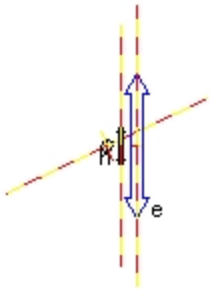
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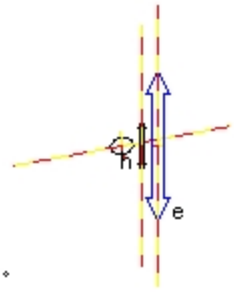
CP1146	**872 2625 1**	**CP1152**
		
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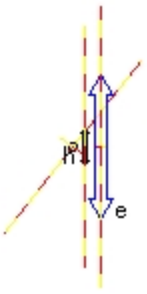	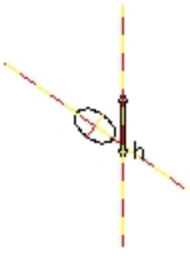	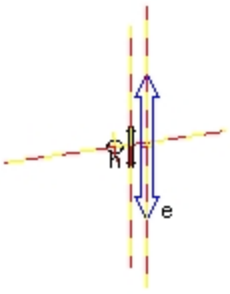
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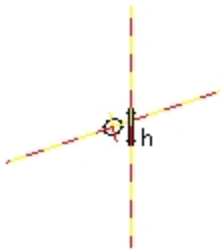
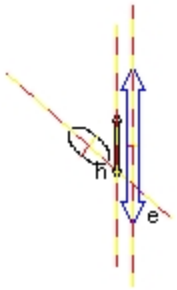
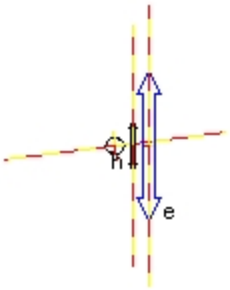
BRIDGE 2	CP1156	CP1213
		
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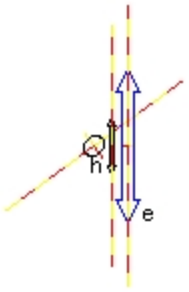
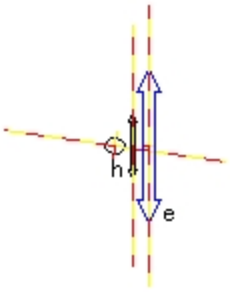
Q 519	**CP1085**	**CP1090**
		
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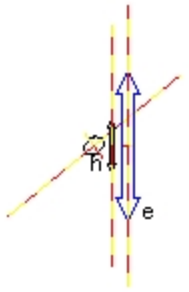
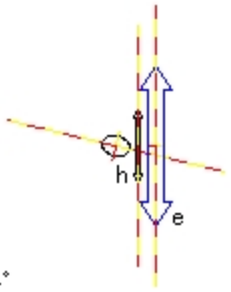
C 519	**CP1242**	**CP1089**
		
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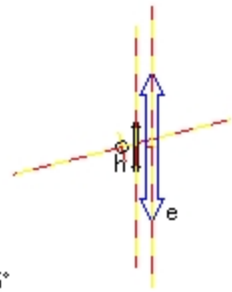
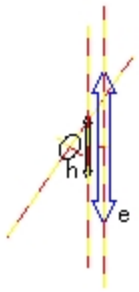
CP1161	**Q 529**	**CP1158**
		
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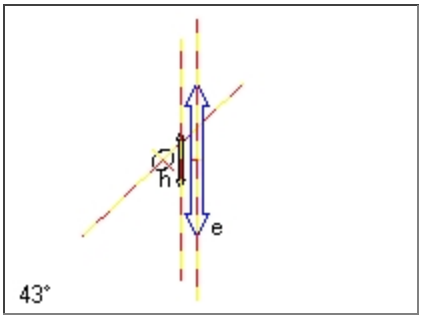
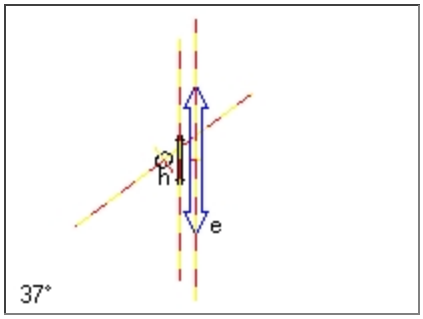
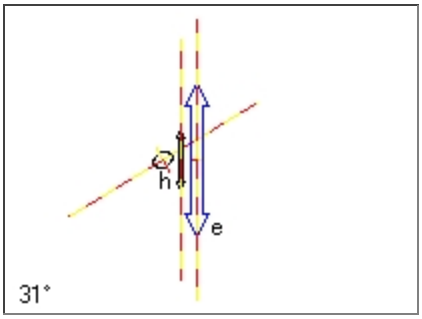
CP1223	CP1160	CP1083
		
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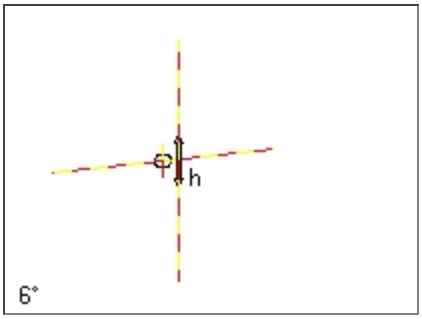	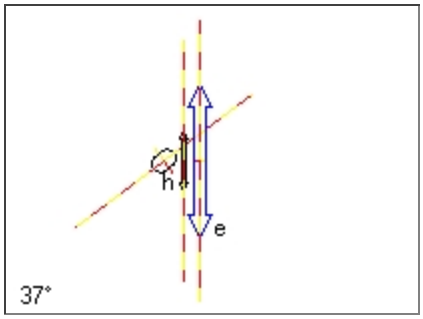	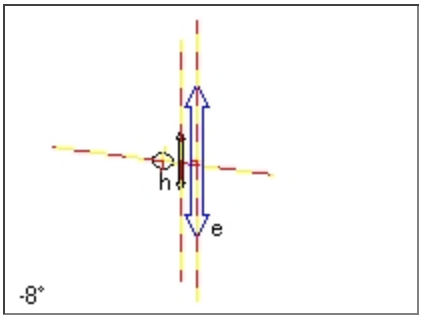
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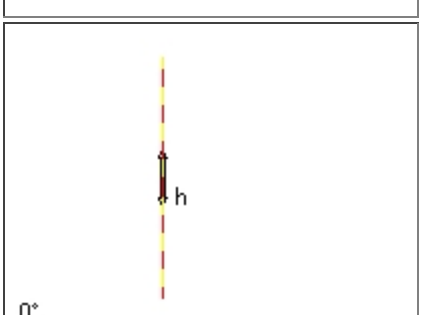
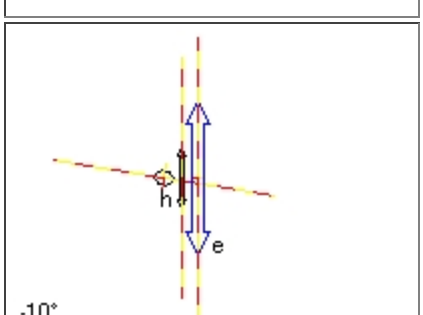
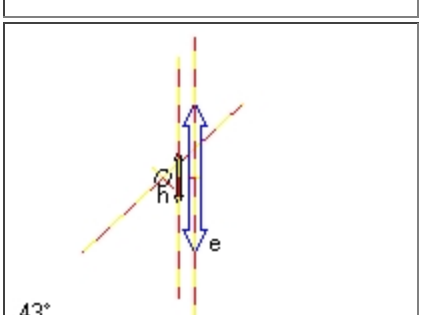
AIRPORT	**CP1091**	**CP1159**
		
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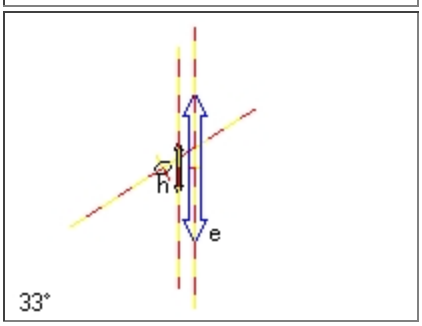	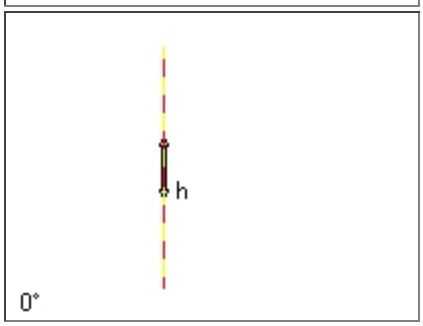	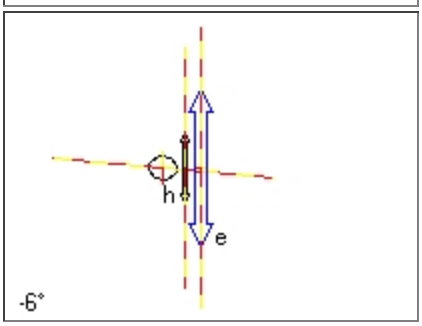
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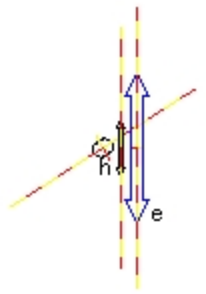	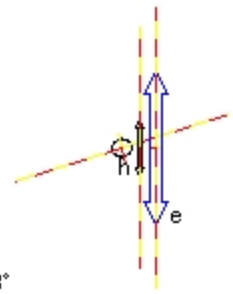	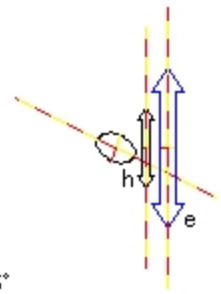
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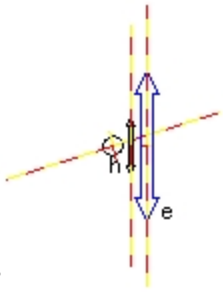	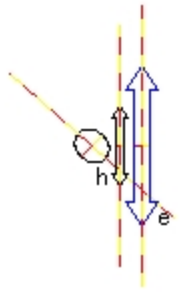	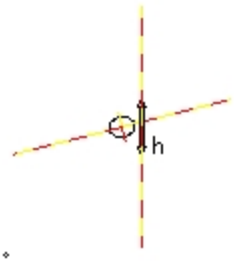
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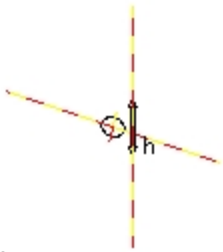
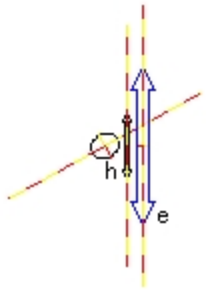
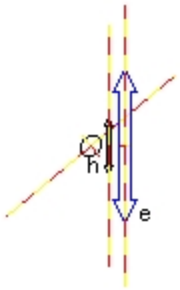
CP1068	**CP1073**	**CP1077**
		
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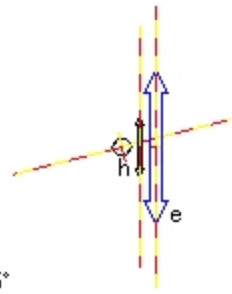
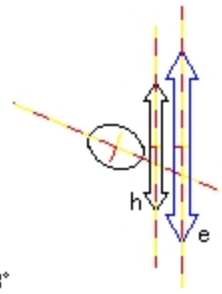
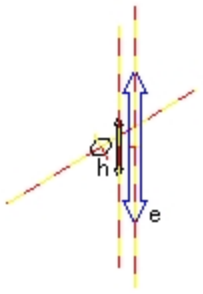
CP1067	**CP1070**	**CP1082**
		
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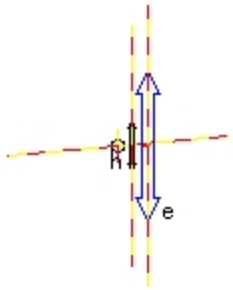
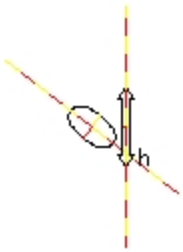
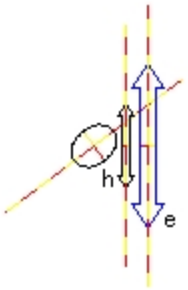
CP1210	CP1069	CP1072
		
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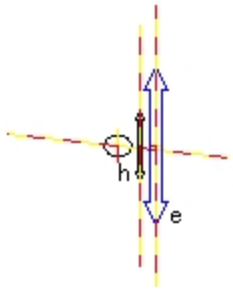
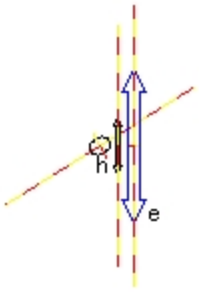
CP1074	**CP1081**	**CP1078**
		
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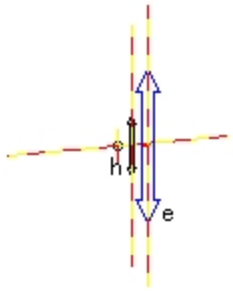
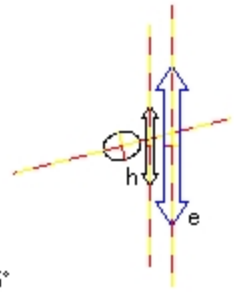
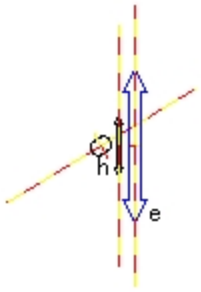
FDEM-BC1	**CP1071**	**CP1080**
		
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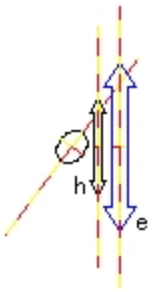
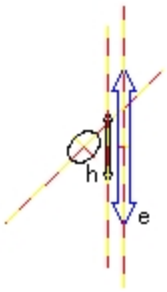
CP1221	**CP1086**	**A 524**
		
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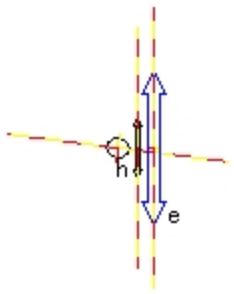
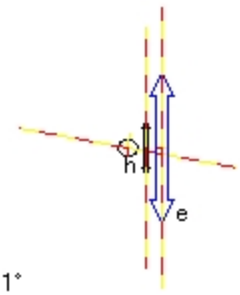
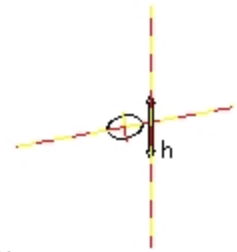
CP1057	CP1207	CP1058
		
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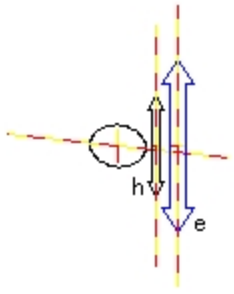
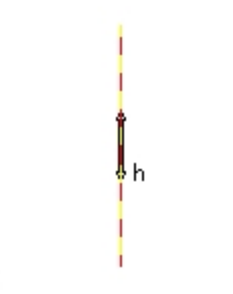
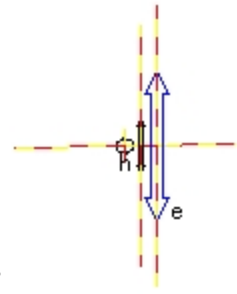
CP1061	**S 410 X**	**CP1240**
		
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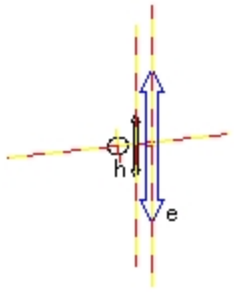	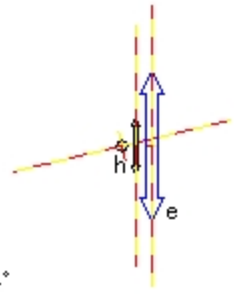	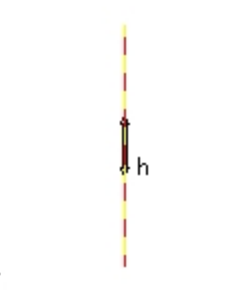
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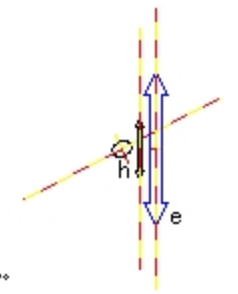
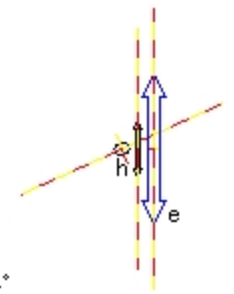
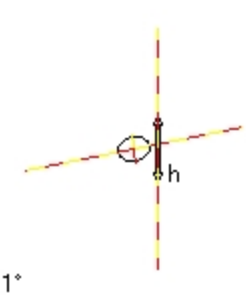
CP1066	**CP1065**	**CP1059**
		
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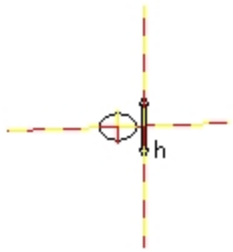
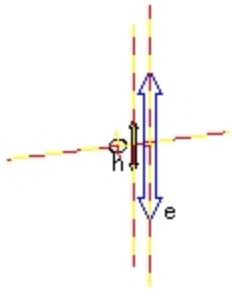
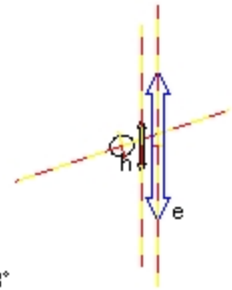
CORNER AZ	CP1243	CP1201
		
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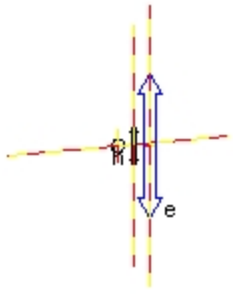
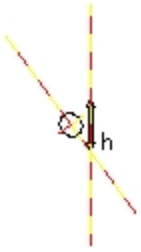
CP1250	**Y 555**	**Star**
		
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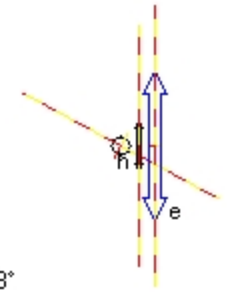
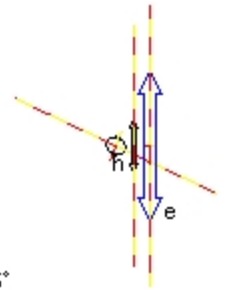
CP1205	**CP1208**	**CP1203**
		
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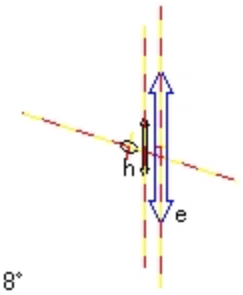
CP1053	**CP1055**	**FLGPS 69**
		
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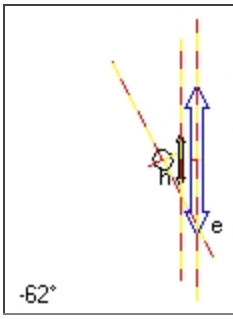
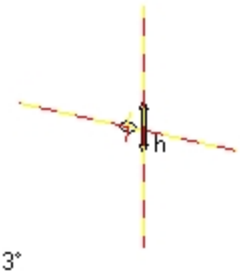
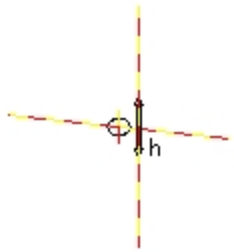
CP1199	CP1054	CP1056
		
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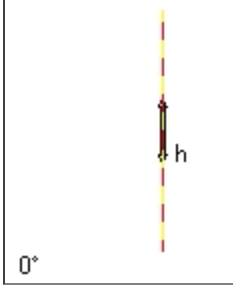
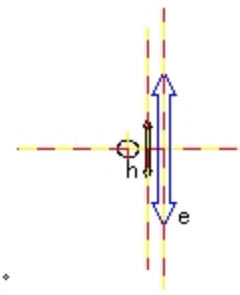
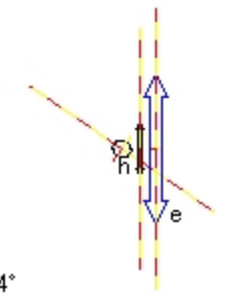
V 486	**FDEM-S7**	**CP1052**
		
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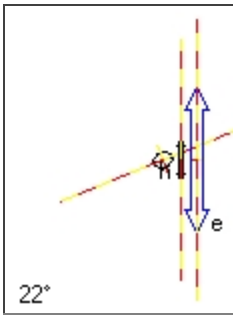
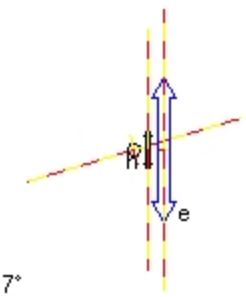
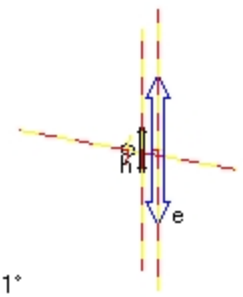
CP1212	**CP1237**	**CP1202**
		
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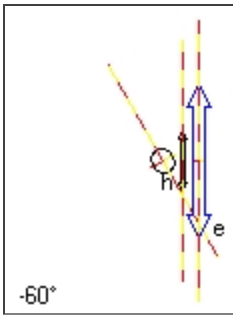
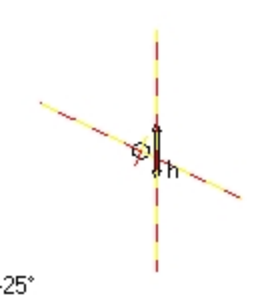
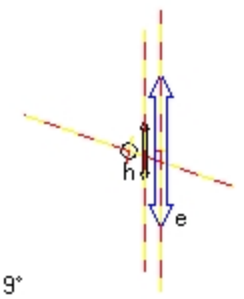
CP1236	**CP1051**	**FDEM-PS5**
		
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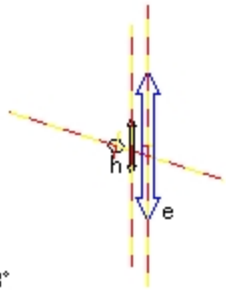
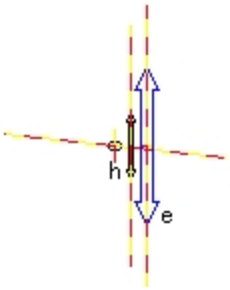
CP1050	D 537	FDEM-BC2
		
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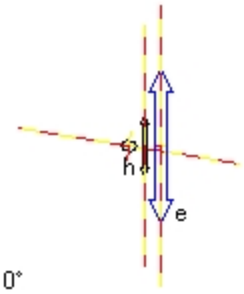
FISH	**CP1097**	**CP1163**
		
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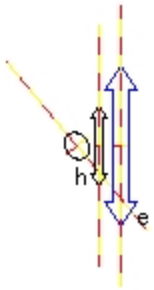
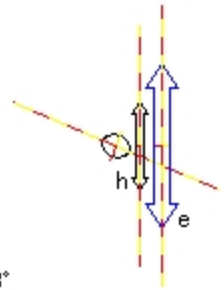
CP1233	**CP1182**	**K 518**
		
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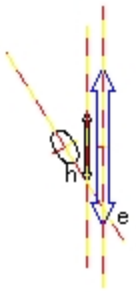
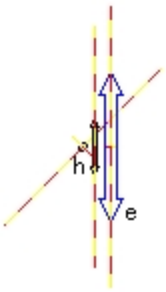
CP1102	**FLGPS 57**	**CP1171**
		
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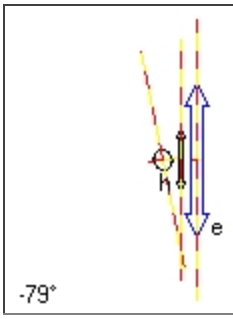
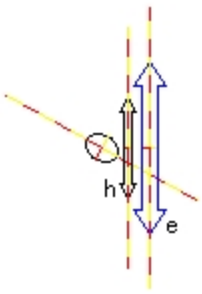
CP1173	CP1174	CP1178
		
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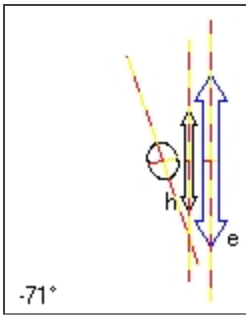
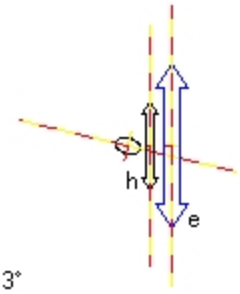
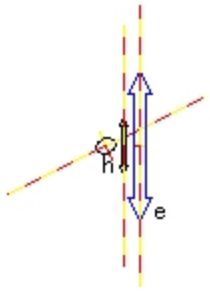
CP1177	**CP1181**	**CP1225**
		
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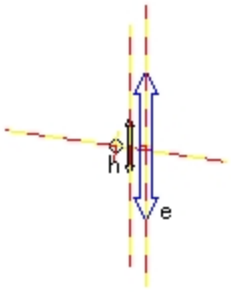
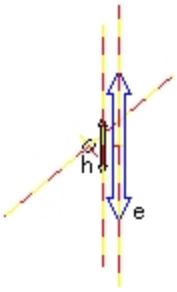
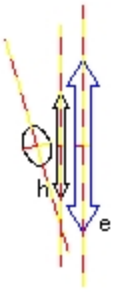
CP1227	**CP1172**	**CP1176**
		
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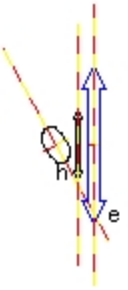
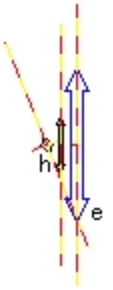
K 523	**CP1101**	**CP1098**
		
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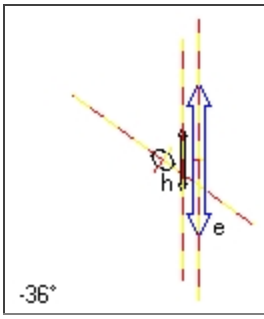
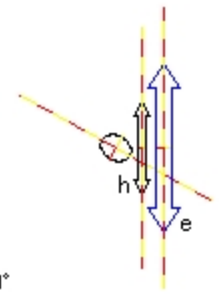
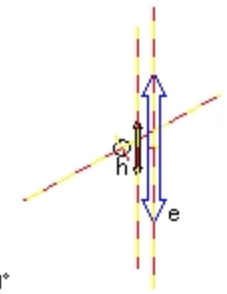
CP1094	CP1232	CP1167
		
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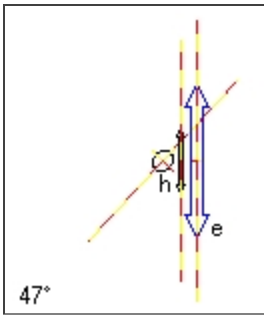
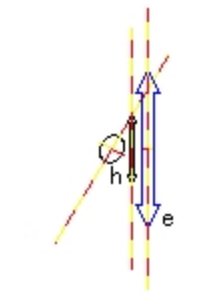
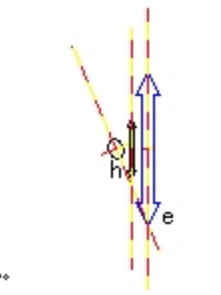
CP1111	**CP1228**	**CP1226**
		
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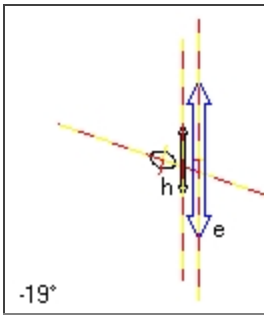	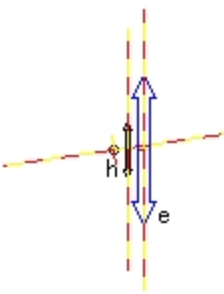	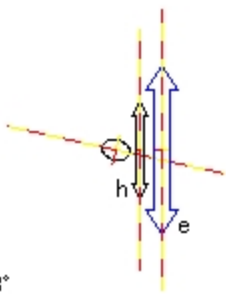
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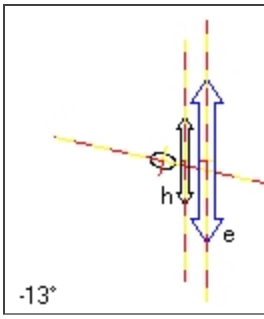
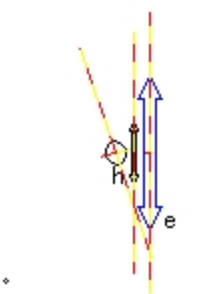
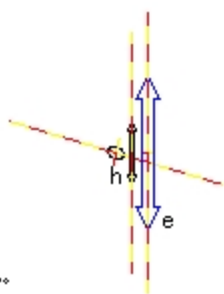
CP1180	**CP1109**	**CP1104**
		
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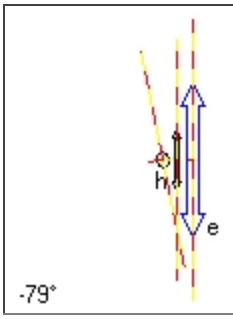
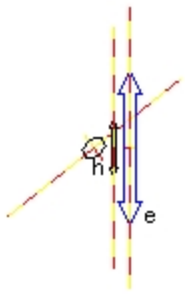
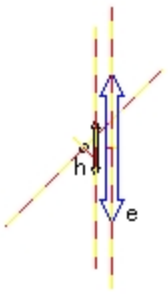
CP1099	CP1166	CP1170
		
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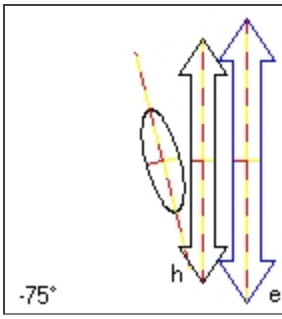
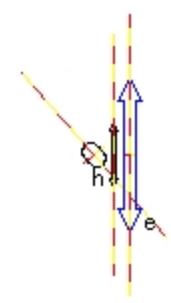
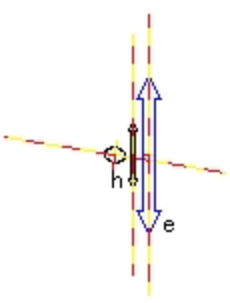
CP1175	**CP1103**	**CP1162**
		
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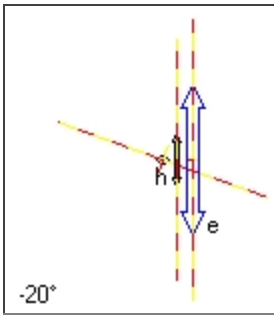	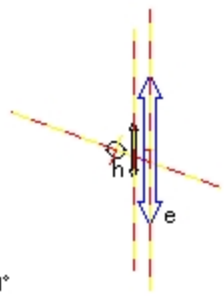	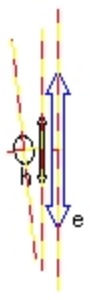
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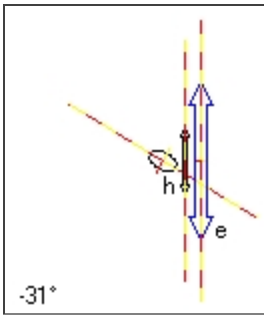
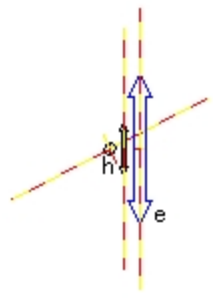
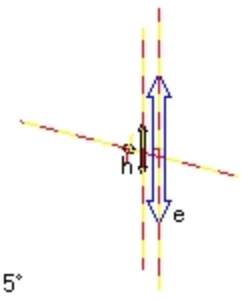
CP1093	**CP1165**	**CP1169**
		
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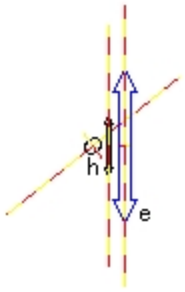
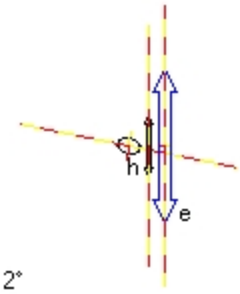
CP1230	CP1091a	CP1096
		
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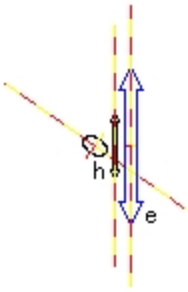
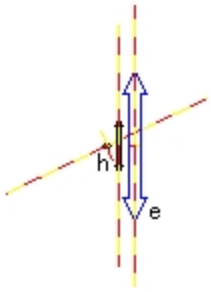
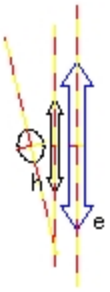
CP1095	**CP1164**	**CP1231**
		
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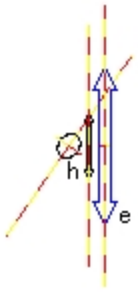		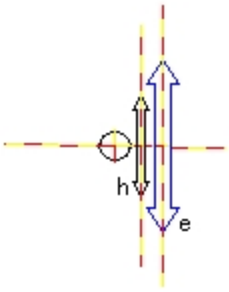
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	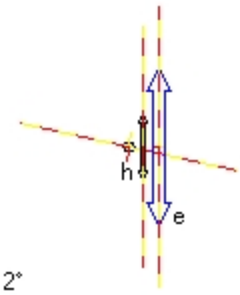	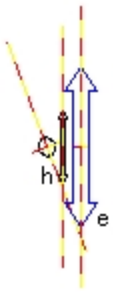
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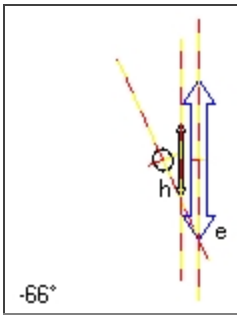	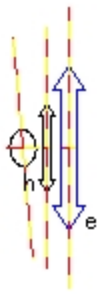	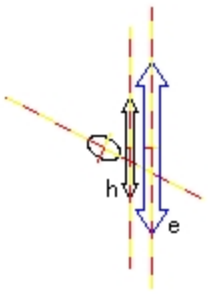
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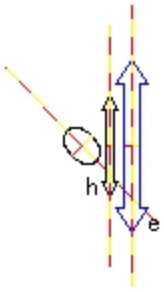
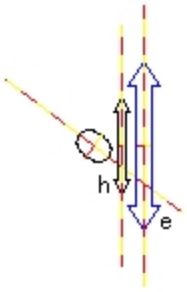
CP1114	**CP1186**	**OKEEPORT RESET**
		
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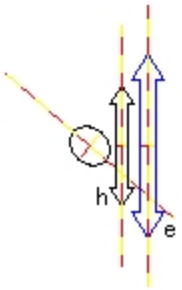
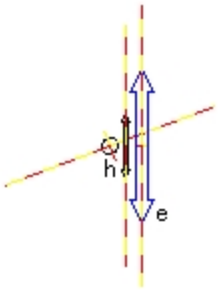
CP1001	**CP1108**	**B 529**
		
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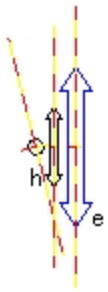	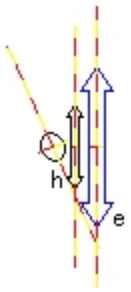	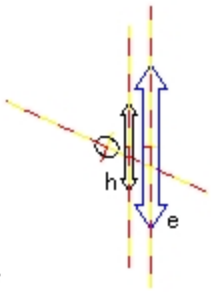
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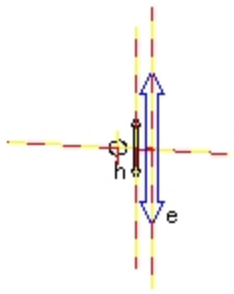
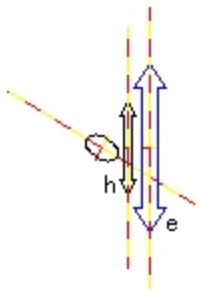
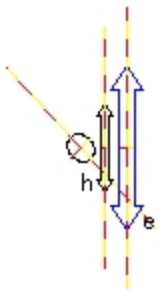
CP1107	CP1116	CP1183
		
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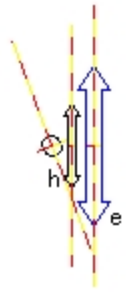
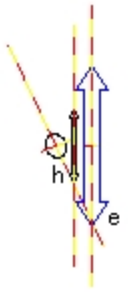
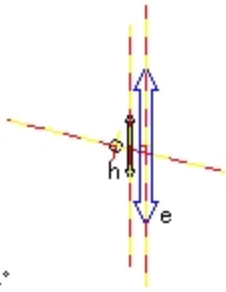
CP1120	**CP1122**	**CP1105**
		
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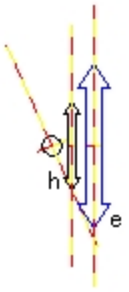
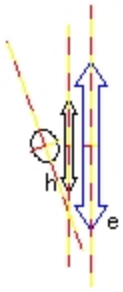
CP1003	**CP1184**	**S 191 W**
		
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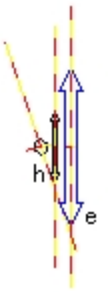
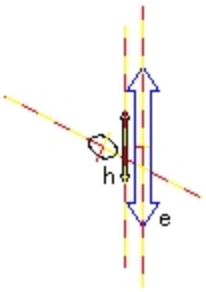
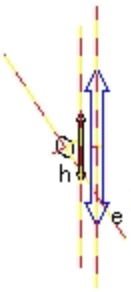
CP1125	**CP1127**	**CP1126**
		
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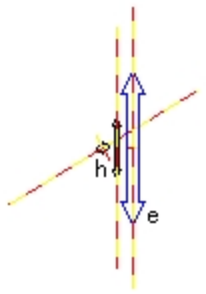
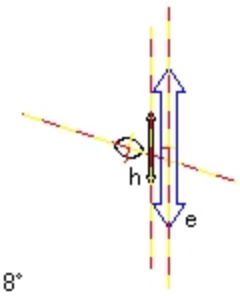
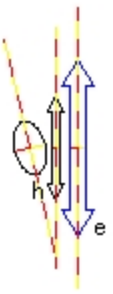
CP1130	CP1129	CP1123
		
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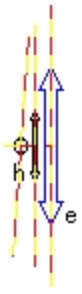
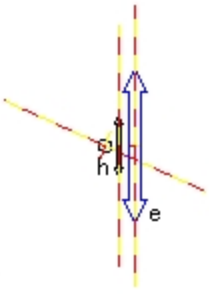
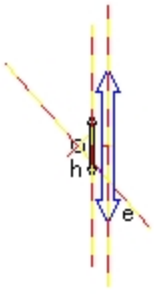
CP1124	**CP1190**	**CP1021**
		
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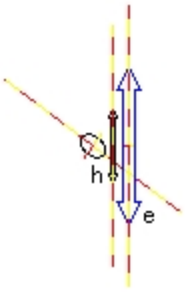	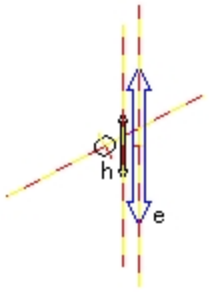	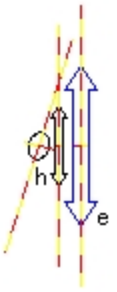
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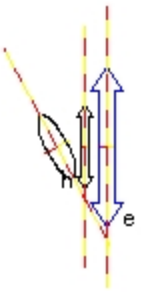
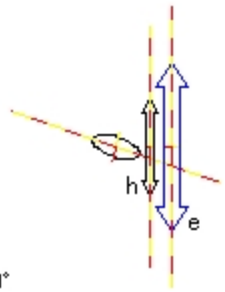
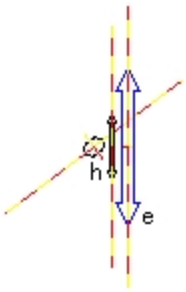
CP1010	**CP1128**	**CP1131**
		
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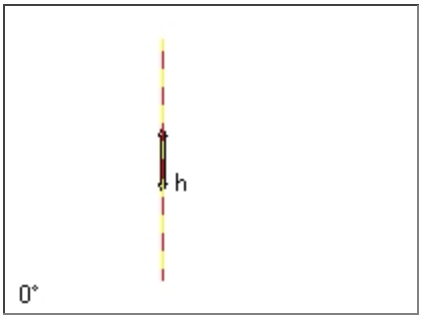
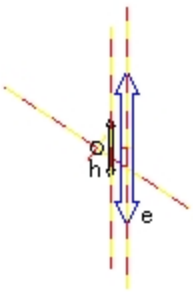
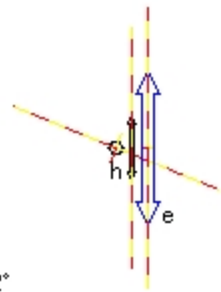
L 048	CP1132	CP1134
		
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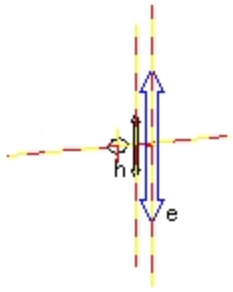	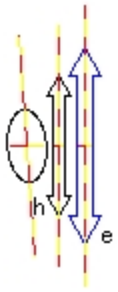	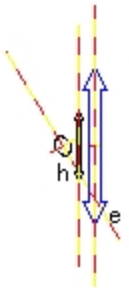
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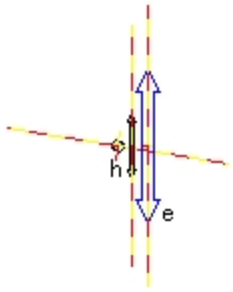	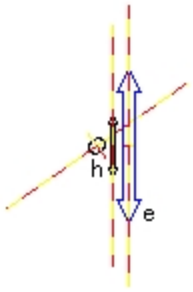	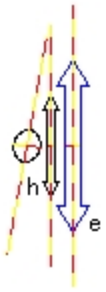
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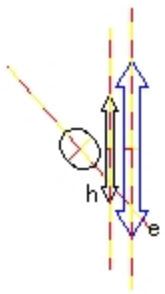
CP1004	**C T2**	**R 543**
		
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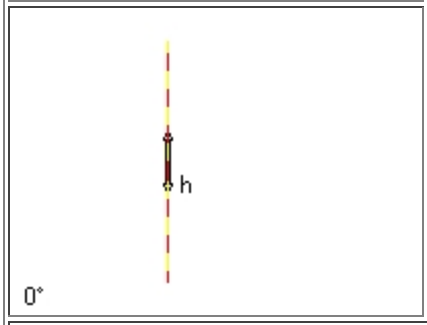
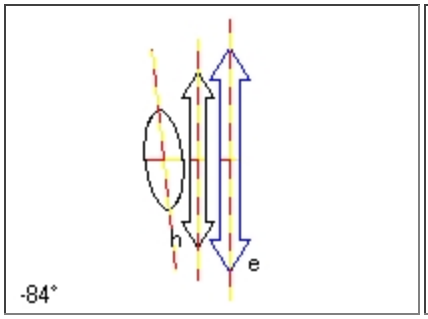
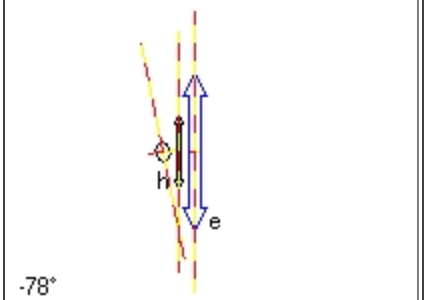
EDN 6 25	CP1002	CP1008
		
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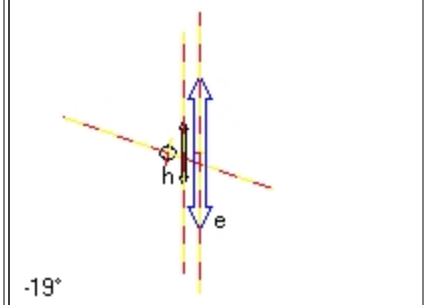	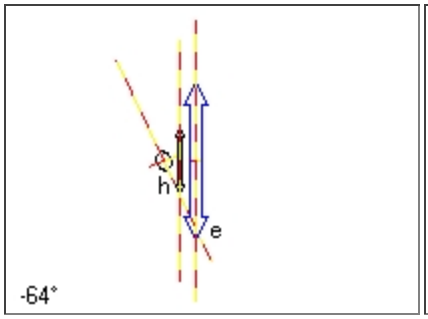	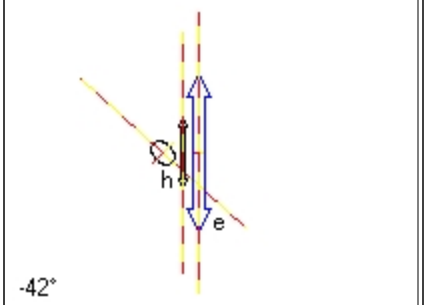
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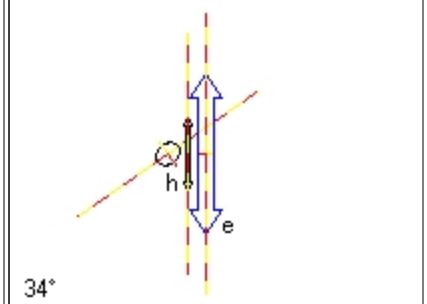	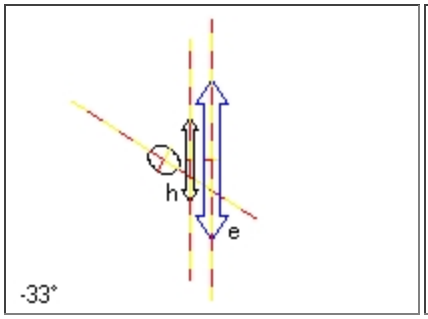	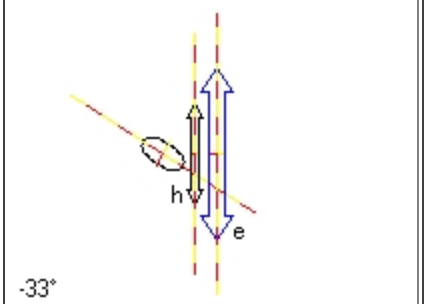
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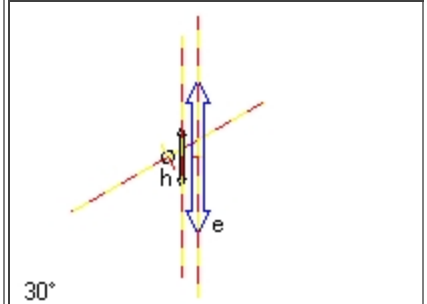	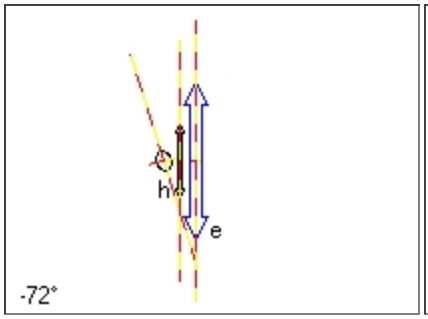	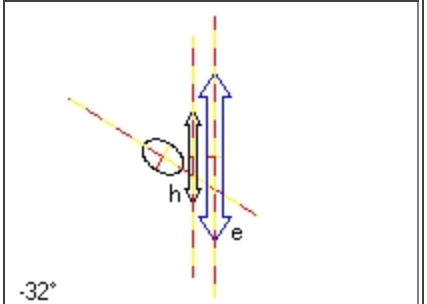
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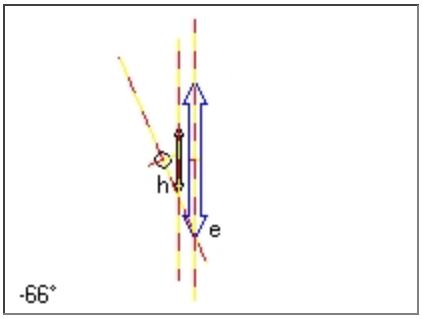
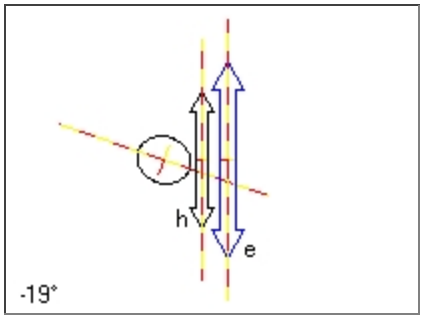
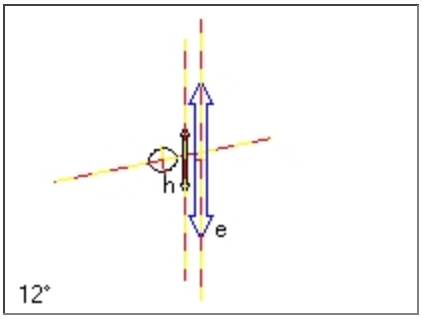
CP1022	CP1005	CP1260
		
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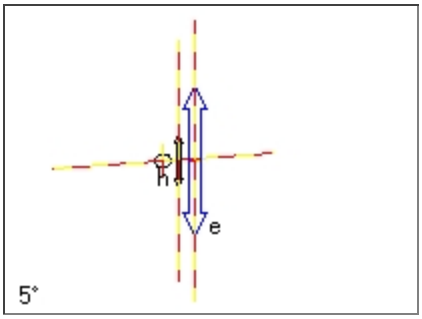	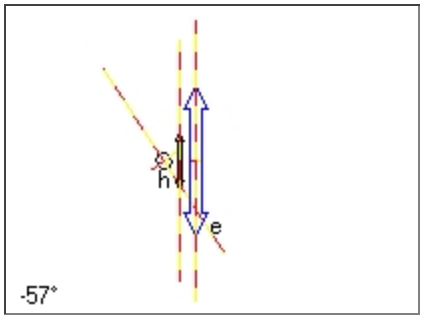	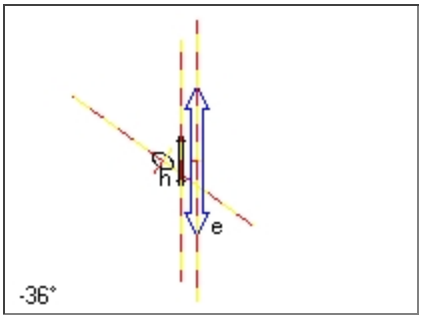
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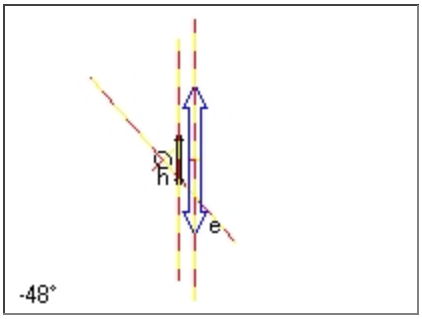
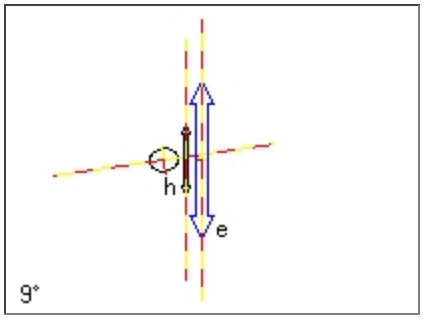
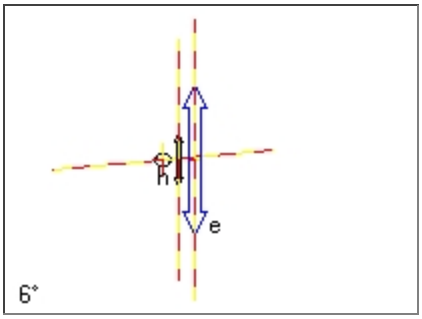
CP1255	**CP1262**	**CP1251**
		
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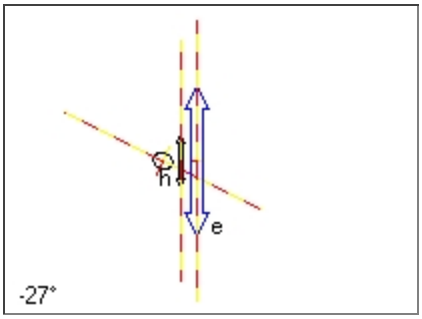	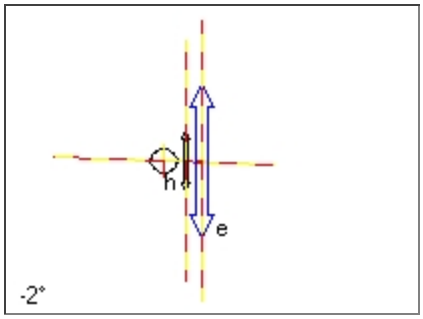	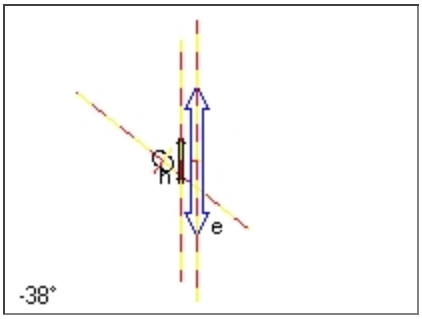
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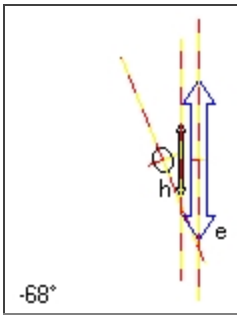
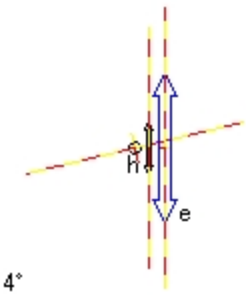
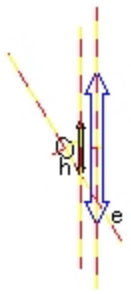
CP1256	CP1064	CP1261
		
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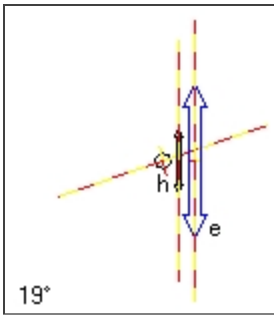
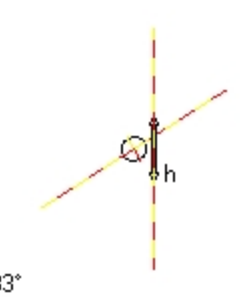
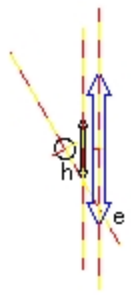
CP1062	**MF 41**	**CP1041**
		
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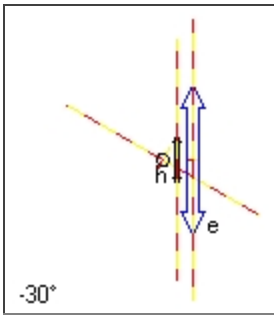
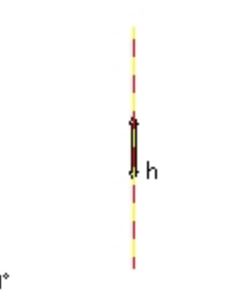
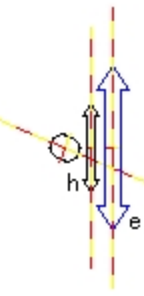
CP1029	**FLGPS 67**	**CP1033**
		
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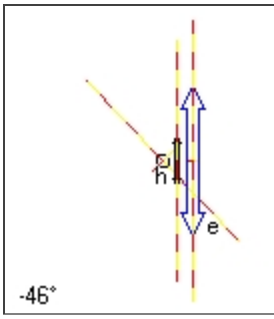
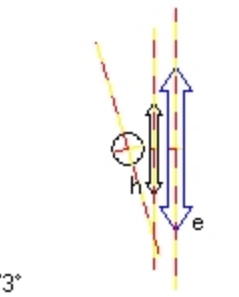
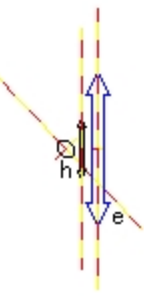
CP1248	**CP1246**	**CP1042**
		
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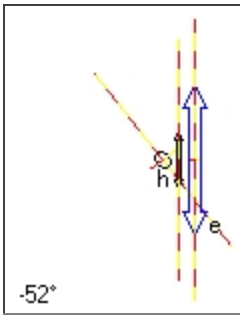	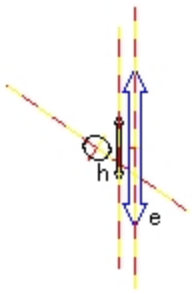	
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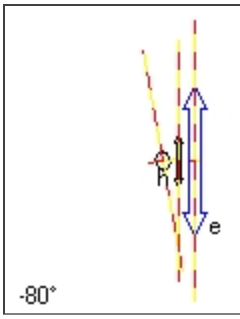	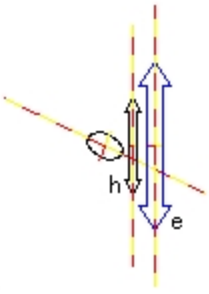	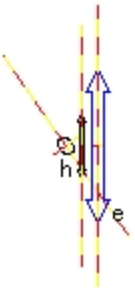
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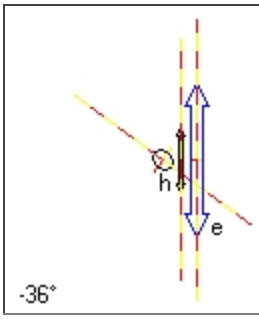	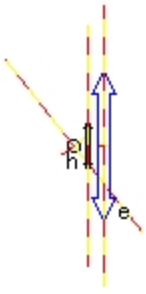	
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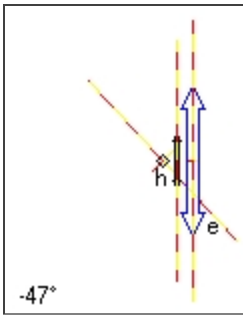	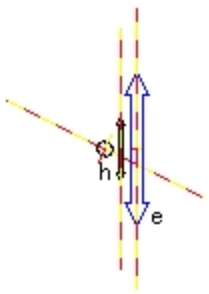	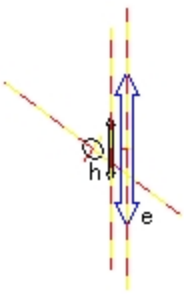
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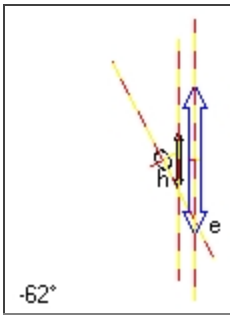	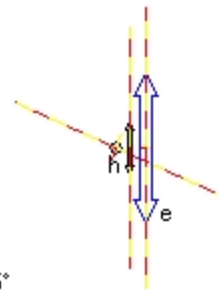	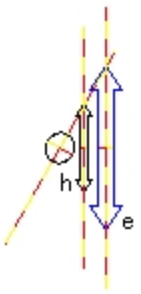
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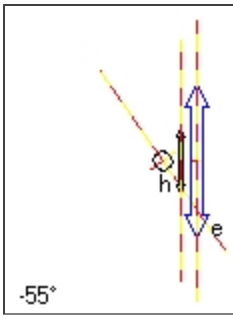
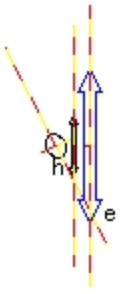
CP1040	**CP1249**	**B 548**
		
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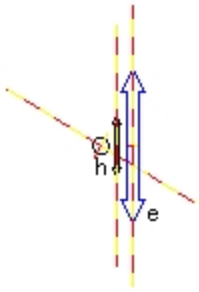		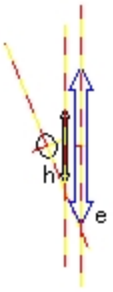
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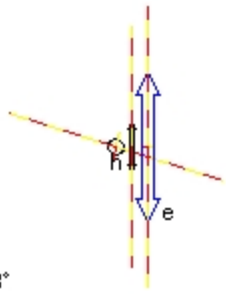
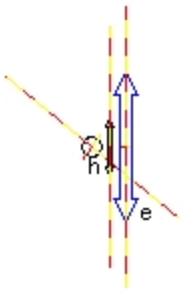
CP1194	**CP1245**	**CP1136**
		
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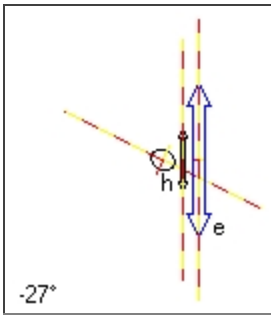
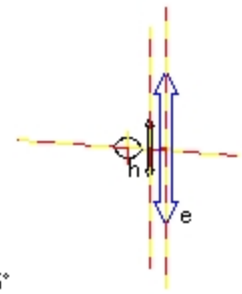
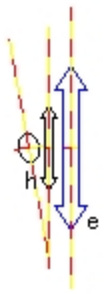
CP1191	CP1027	CP1024
		
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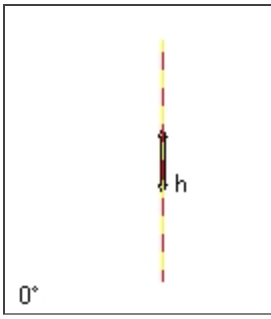
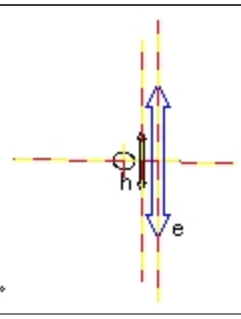
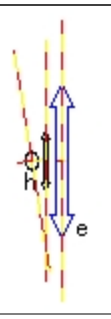
H 547	**CP1026**	**CP1023**
		
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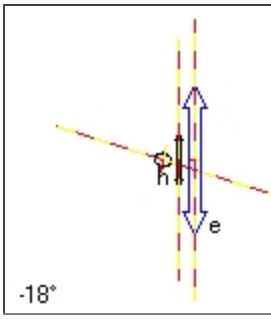
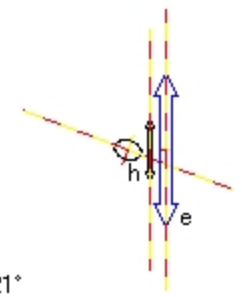
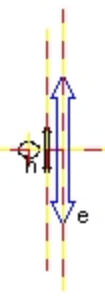
CP1028	**CP1206**	**CP2000**
		
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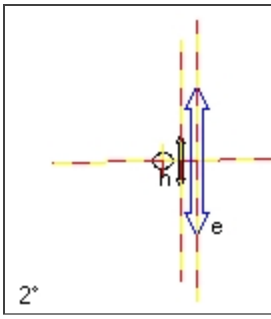
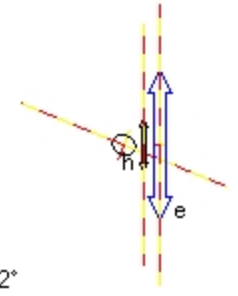
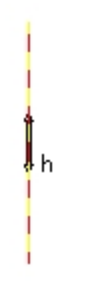
CP2005	**CP2009**	**K 413**
		
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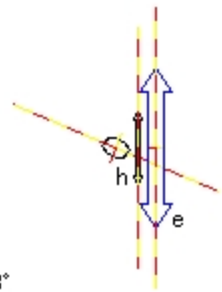
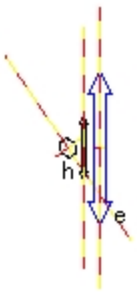
CP1031	CP1035	CP1039
		
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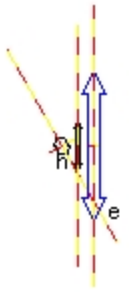
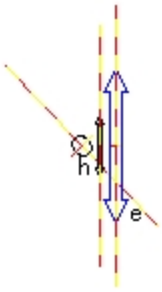
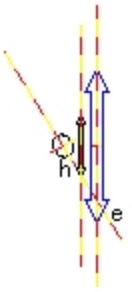
CP1195	**CP1045**	**CP3000**
		
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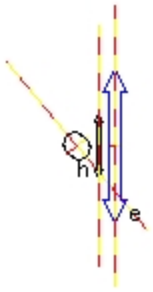
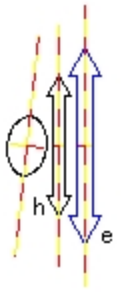
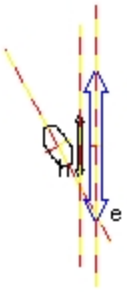
CP3004	**CP3003**	**CP3005**
		
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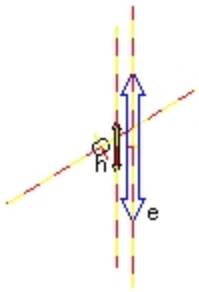
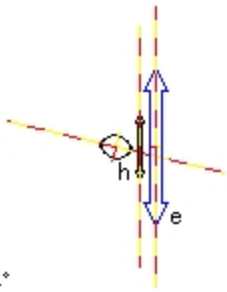
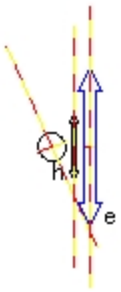
CP3006	**CP3002**	**CP3008**
		
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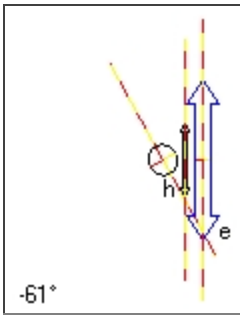
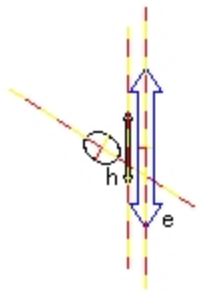
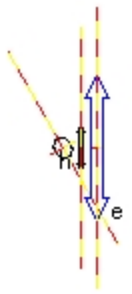
CP3010	CP3001	CP5116
		
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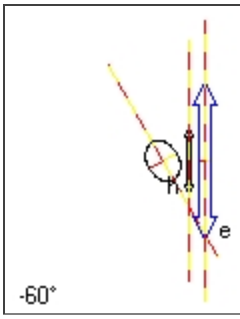
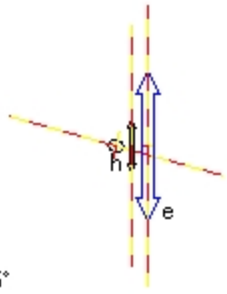
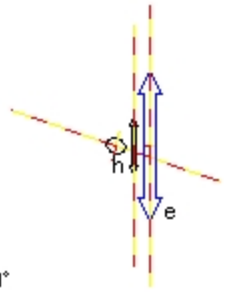
CP5112	**CP5102**	**CP5101**
		
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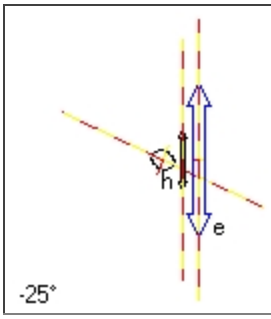
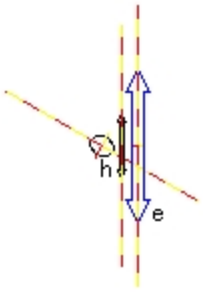
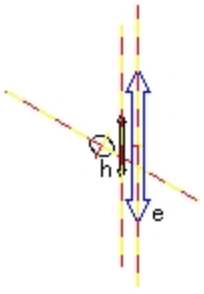
CP5103	**CP5107**	**CP5105**
		
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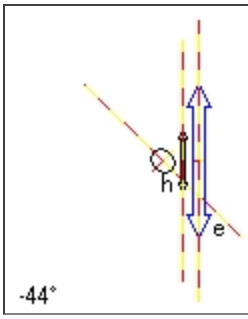
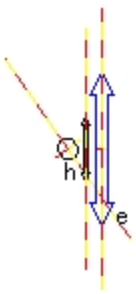
CP5106	**CP5114A**	**CP5114B**
		
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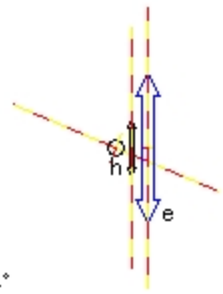
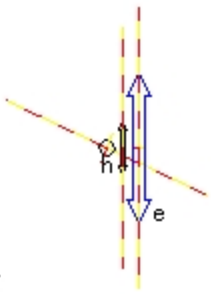
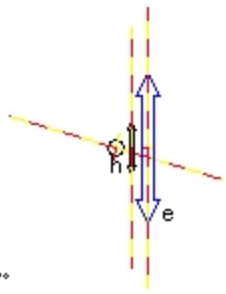
CP5117	CP5108	CP5109
		
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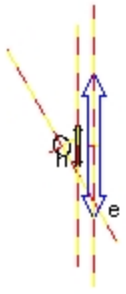
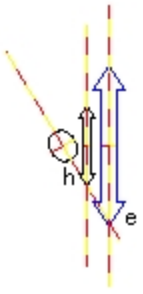
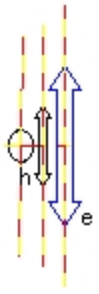
CP5119	**CP5110**	**CP5115**
		
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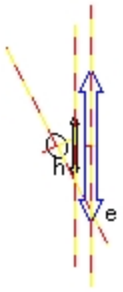
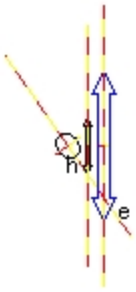
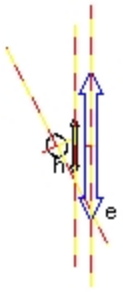
CP5118	**CP5113**	**CP5111**
		
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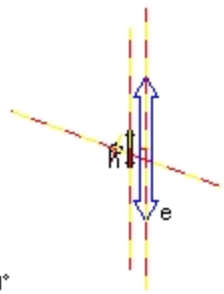
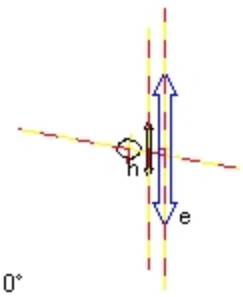
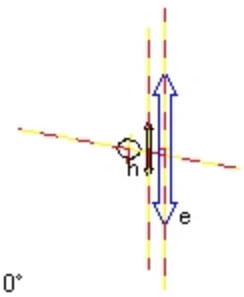
CP5104	**CP5134**	**CP5132**
		
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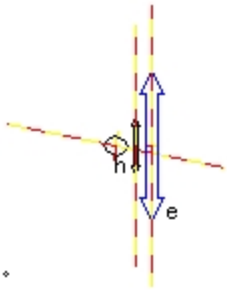
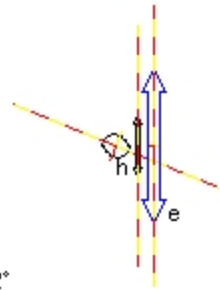
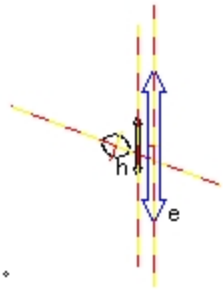
CP5131	CP5137	CP5133
		
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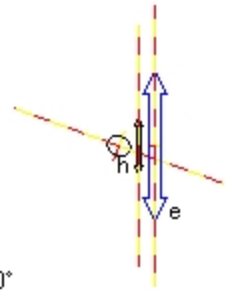
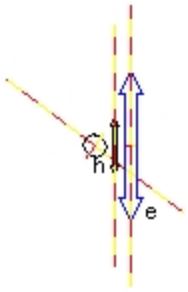
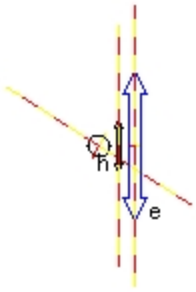
CP1305	**CP5136**	**CP5135**
		
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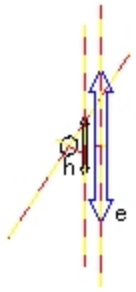
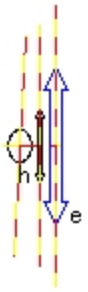
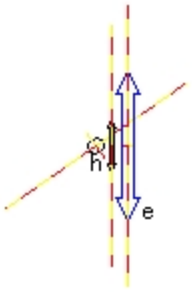
CP5141	**CP5138**	**CP5143**
		
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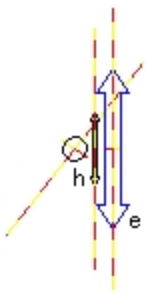
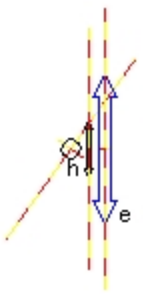
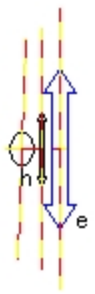
CP5140	**CP5142**	**CP5139**
		
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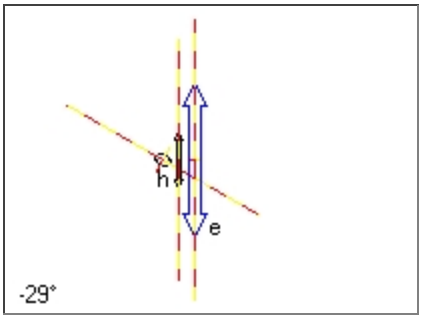
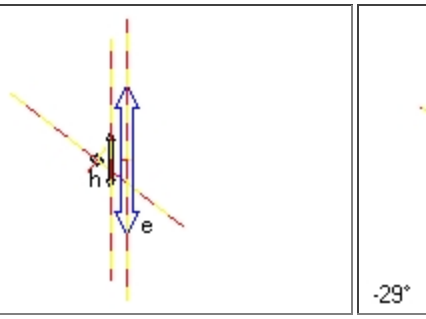
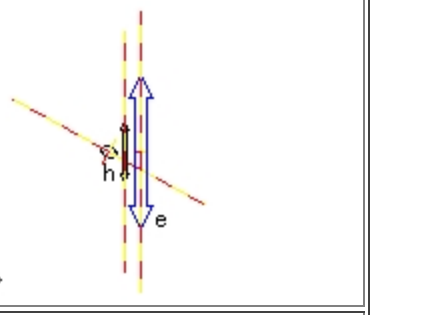
CP5146	CP5145	CP5144
		
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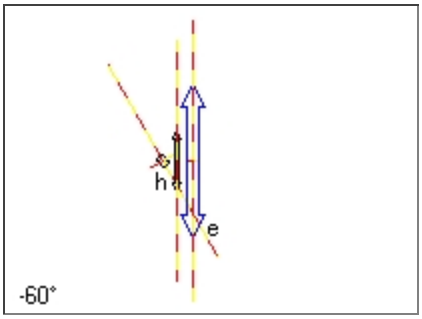
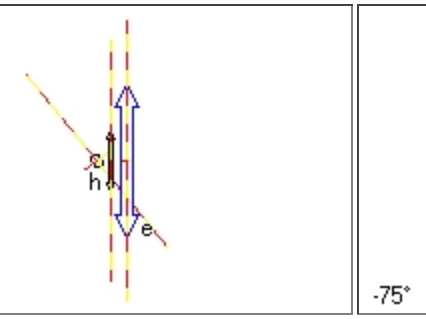
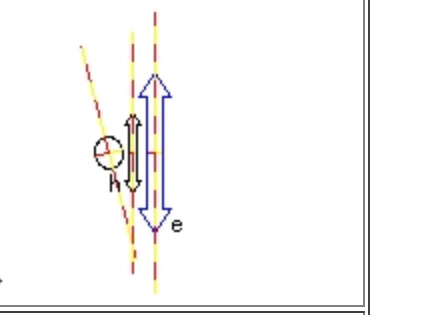
CP5148	**CP5147**	**CP5149**
		
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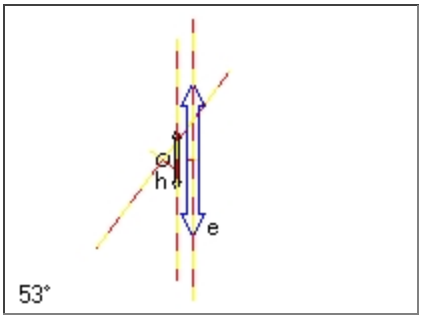
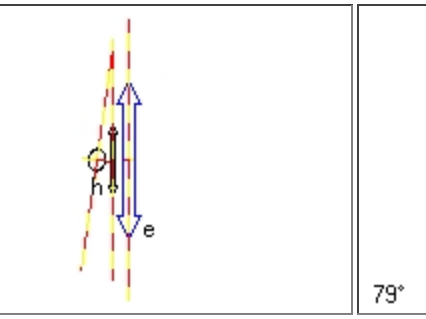
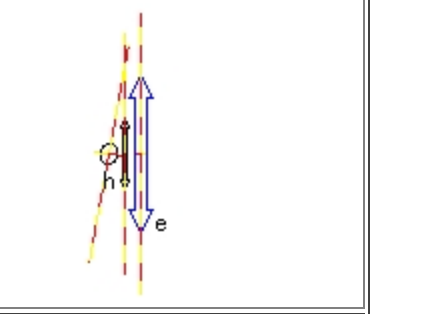
CP5152	**CP5150**	**CP5151**
		
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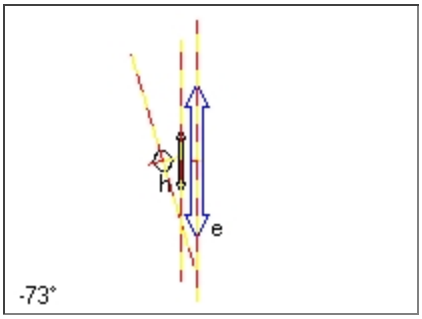
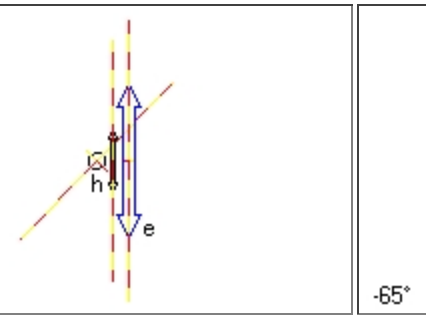
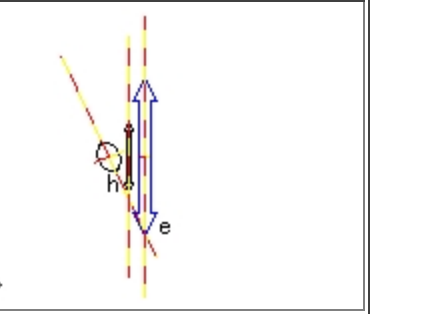
CP5154	**CP5153**	**CP5155**
		
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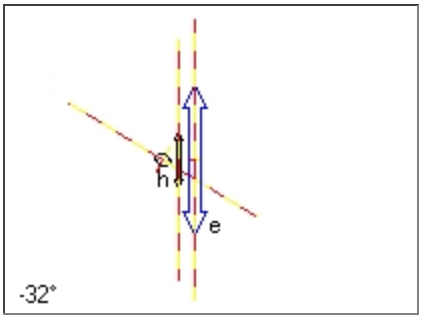
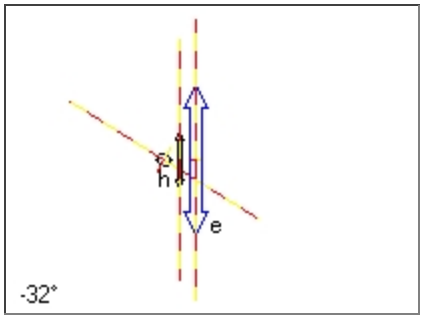
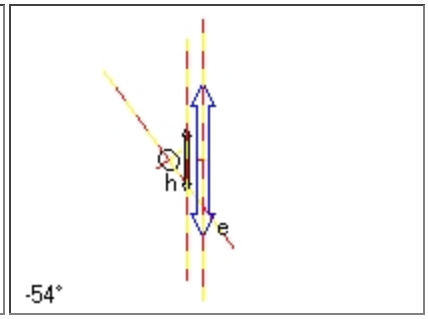
CP5120	CP5129	CP5130
		
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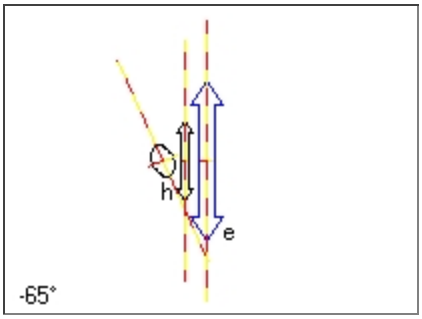
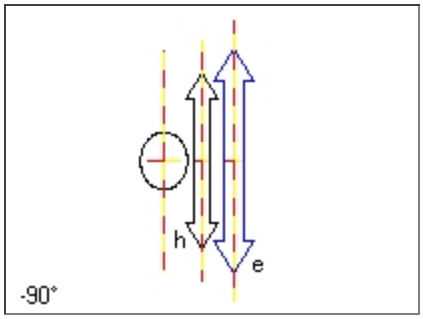
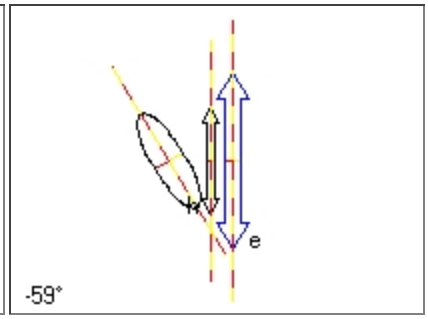
CP5122	**CP5123**	**CP5121**
		
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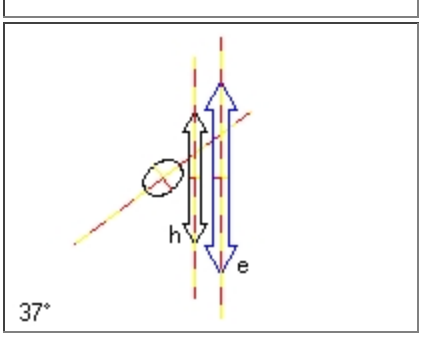
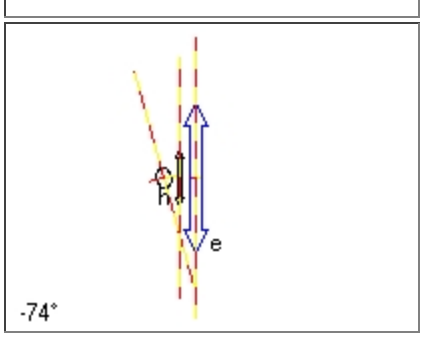
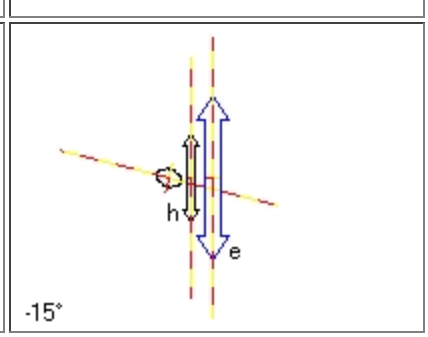
CP5128	**CP5127**	**CP5156**
		
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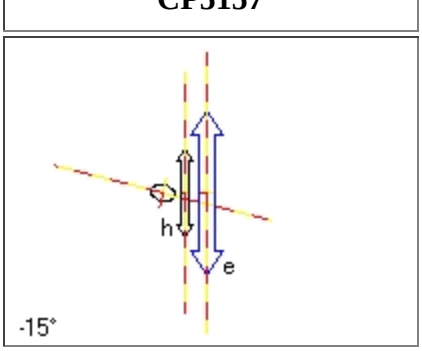
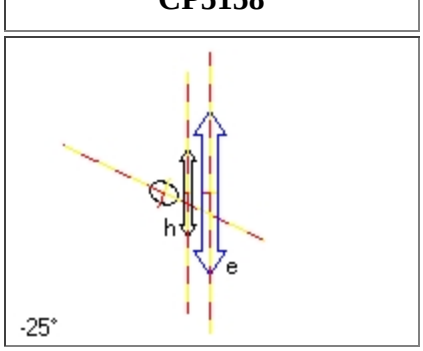
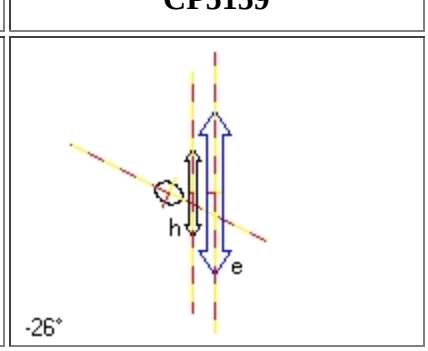
CP5157	**CP5158**	**CP5159**
		
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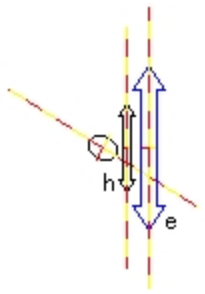
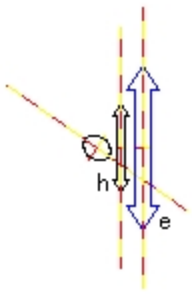
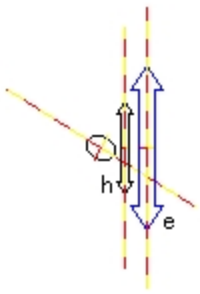
CP5161	CP5162	CP5160
		
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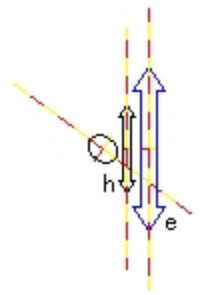
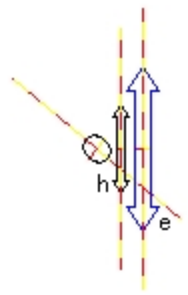
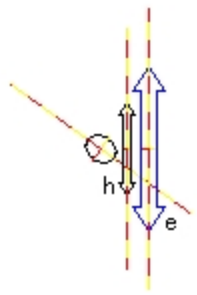
CP5163	**CP5165**	**CP5164**
		
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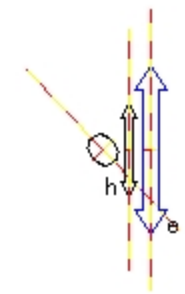
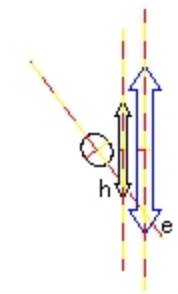
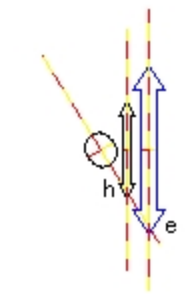
CP5166	**CP5167**	**CP5170**
		
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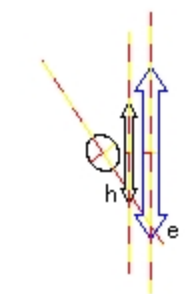
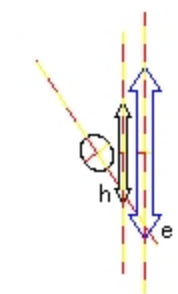
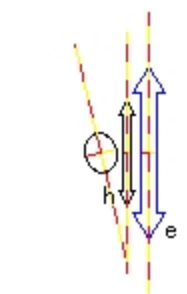
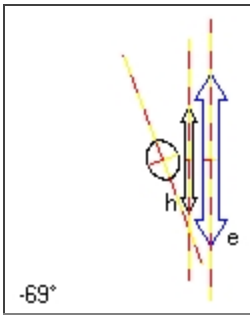
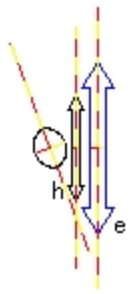
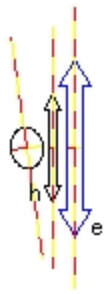
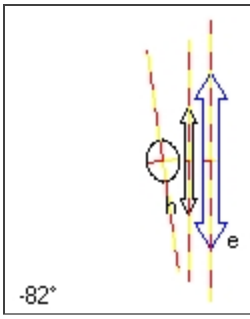
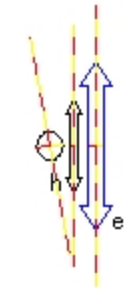
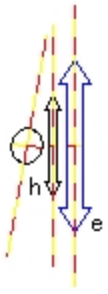
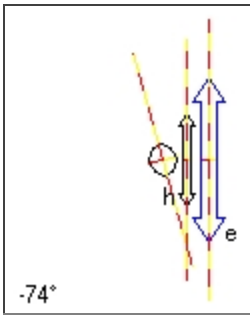
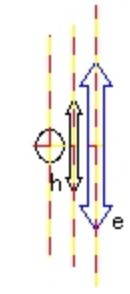
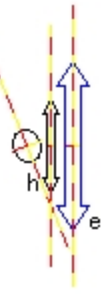
CP5169	**CP5168**	**CP5173**
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		

CP5171	CP5172	CP5175
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
CP5174	**CP5190**	**CP5191**
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
CP5188	**CP5189**	**CP5186**
		
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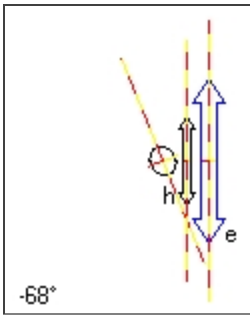
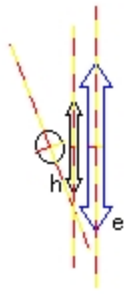
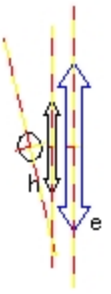
CP5185	**CP5187**	**CP5231**
		
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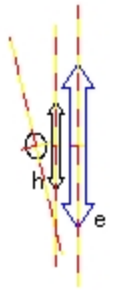
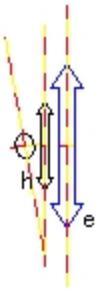
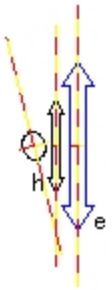
CP5195	CP5227	CP5230
		
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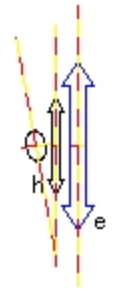
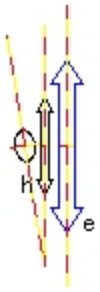
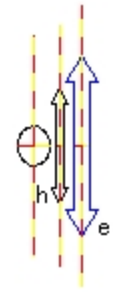
CP5229	**CP5228**	**CP5222**
		
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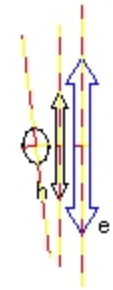
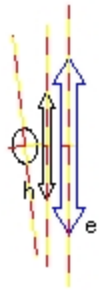
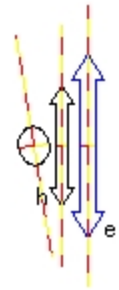
CP5224	**CP5223**	**CP5226**
		
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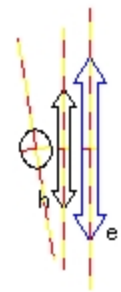
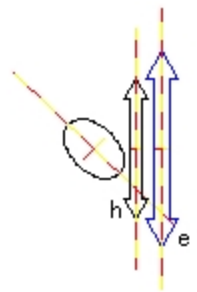
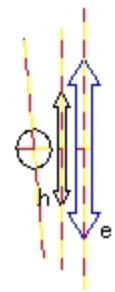
CP5225	**CP5221**	**CP5219**
		
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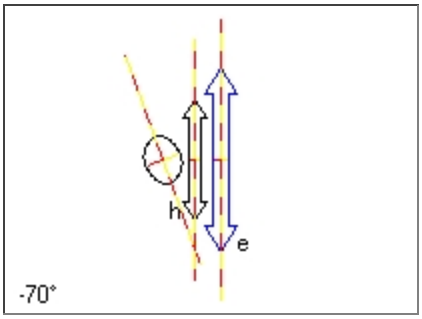
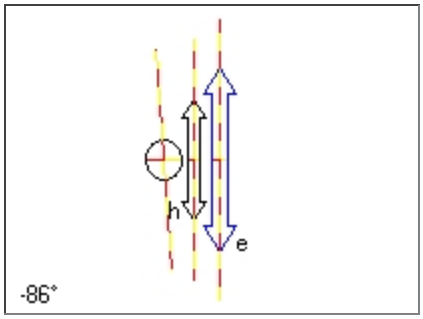
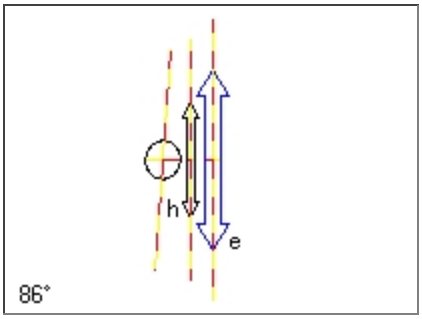
CP5220	CP5217	CP5216
		
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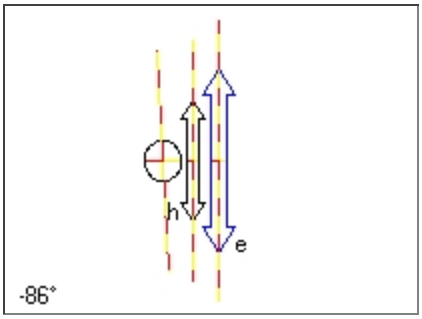
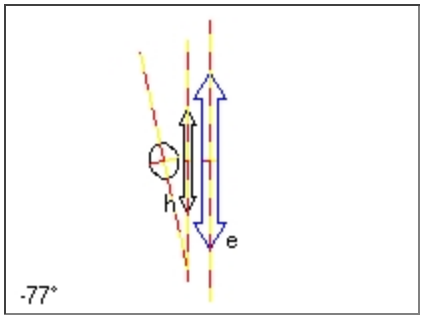
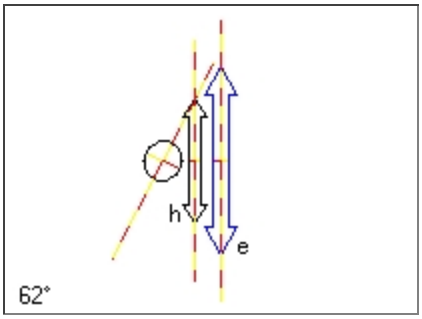
CP5218	**CP5214**	**CP5213**
		
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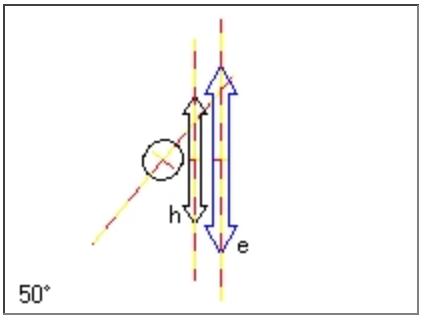
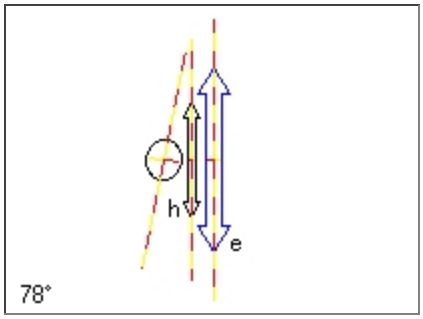
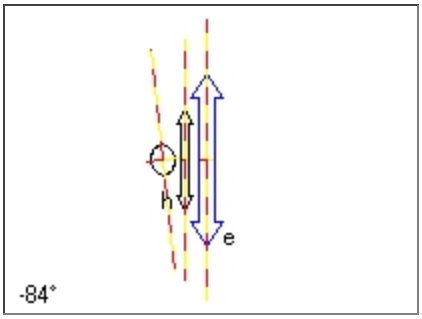
CP5215	**CP5212**	**CP5210**
		
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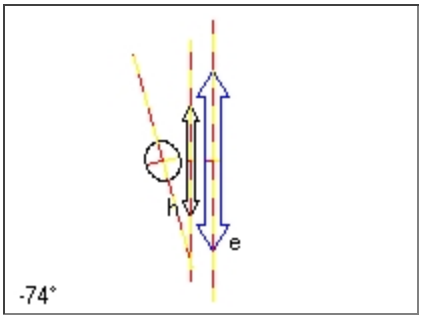
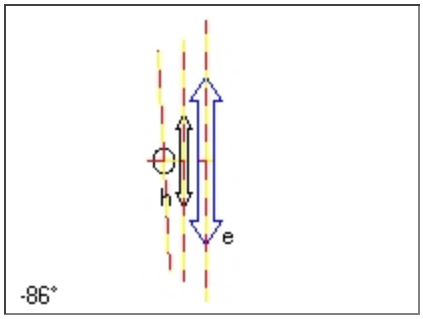
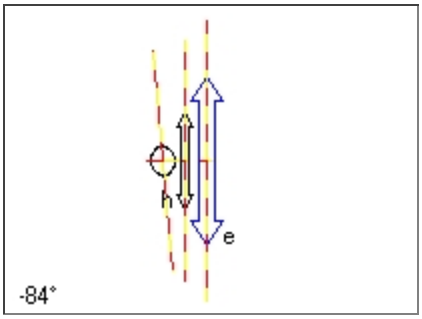
CP5211	**CP5207**	**CP5208**
		
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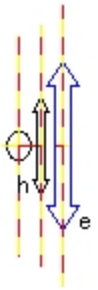
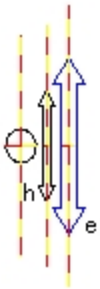
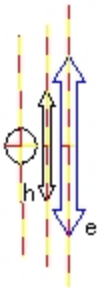
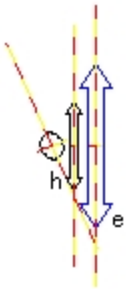
CP5209	CP5205	CP5206
 -84°	 -88°	 90°
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
CP5204	**CP5202**	**CP5203**
 -89°	 -89°	 -66°
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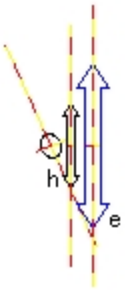
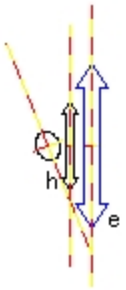
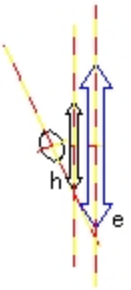
CP5200	**CP5201**	**CP5199**
 -65°	 -68°	 -64°
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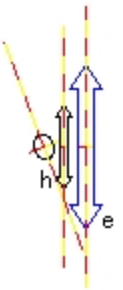
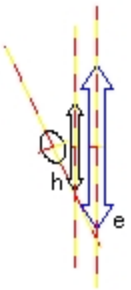
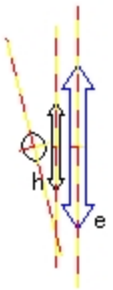
CP5197	**CP5198**	**CP5196**
 -69°	 -65°	 -76°
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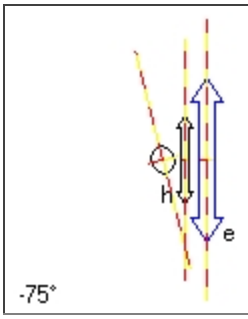
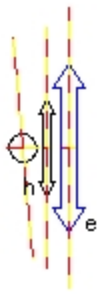
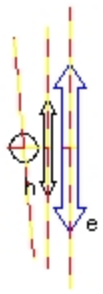
CP5194	CP5192	CP5193
		
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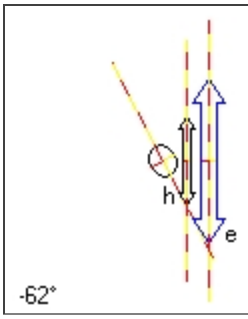
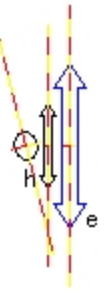
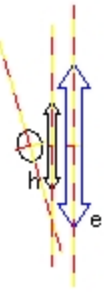
CP5182	**CP5181**	**CP5179**
		
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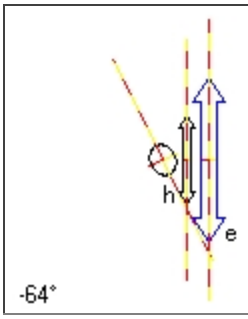
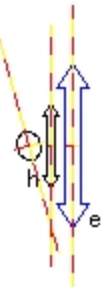
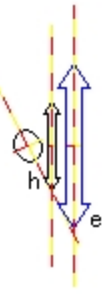
CP5183	**CP5180**	**CP5184**
		
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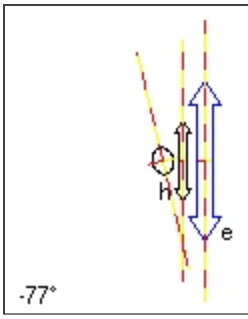
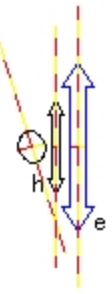
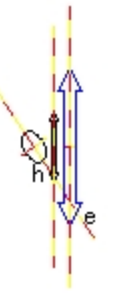
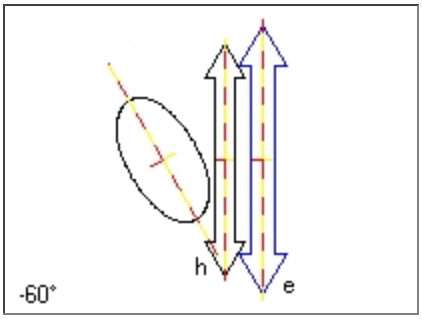
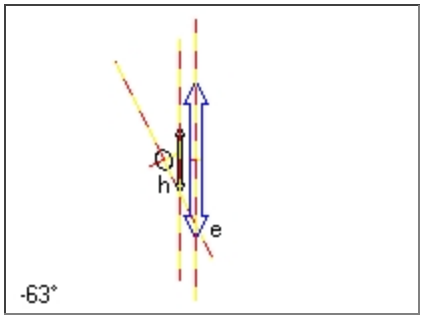
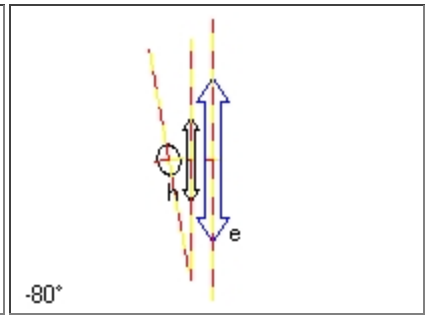
CP5177	**CP5178**	**CP5125**
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		

CP5126	CP5124	CP5176
		
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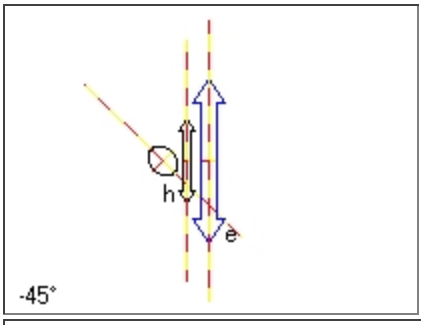
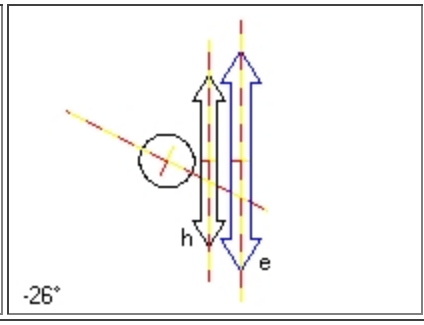
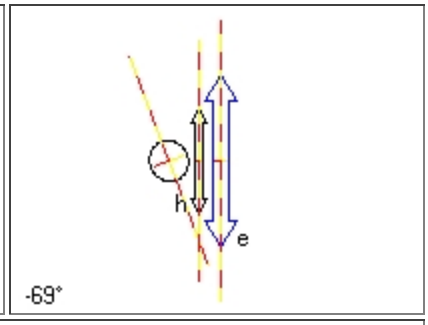
CP5345	**CP5300**	**CP5341**
		
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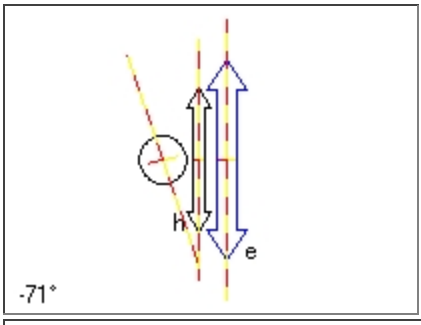
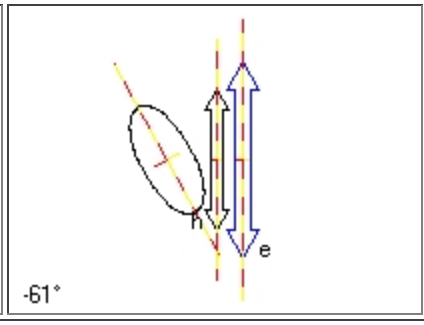
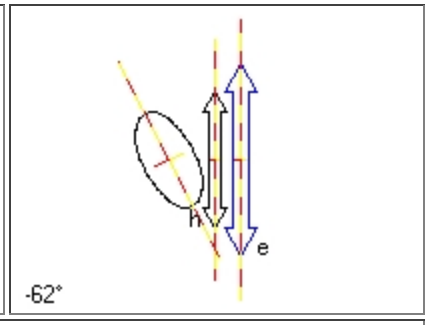
CP5343	**CP5301**	**CP5342**
		
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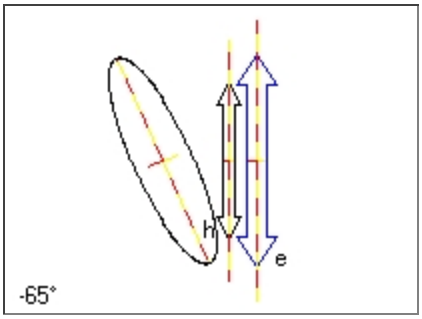
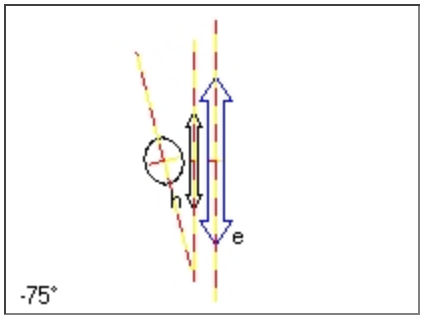
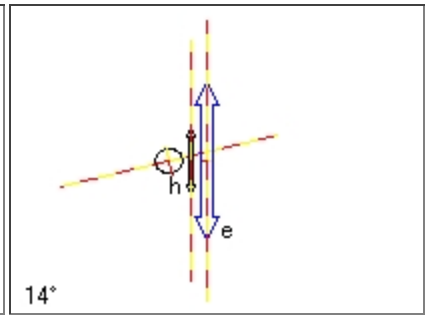
CP5337	**CP5338**	**CP5316**
		
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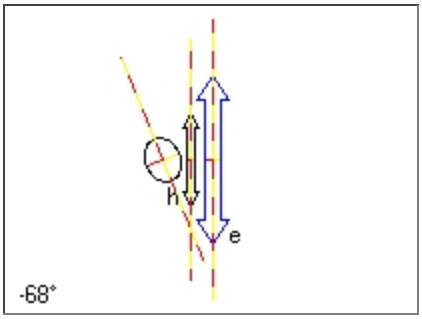
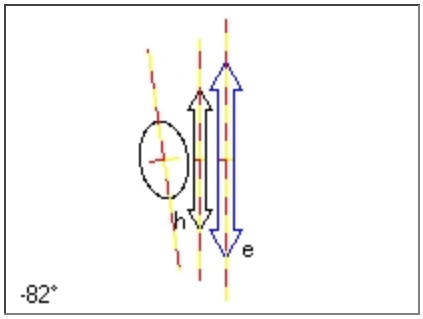
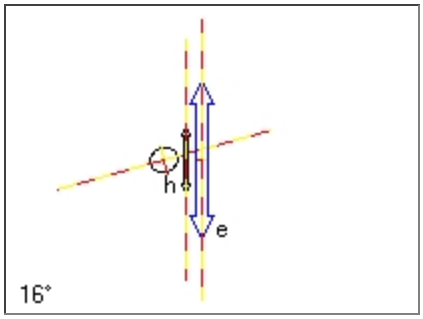
CP5339	CP5334	CP5336
		
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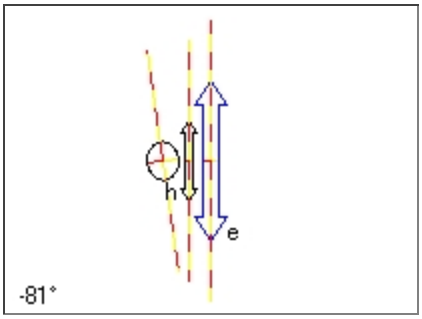
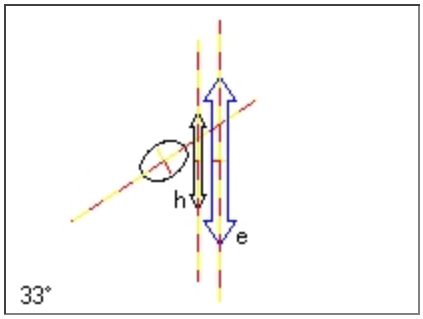
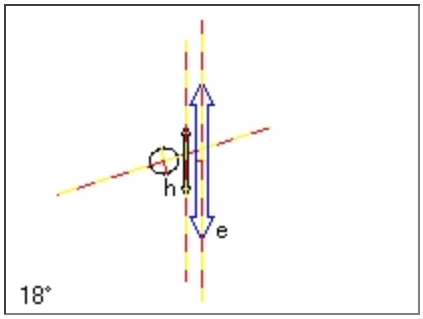
CP5340	**CP5302**	**CP5333**
		
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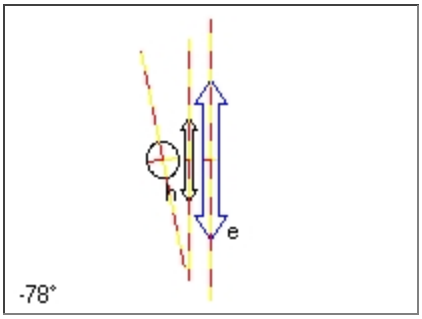
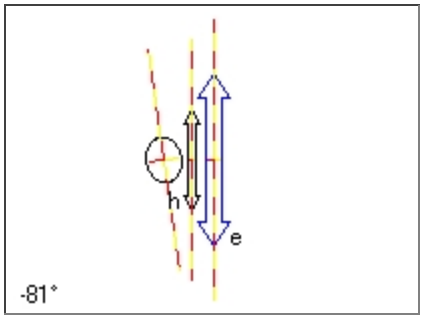
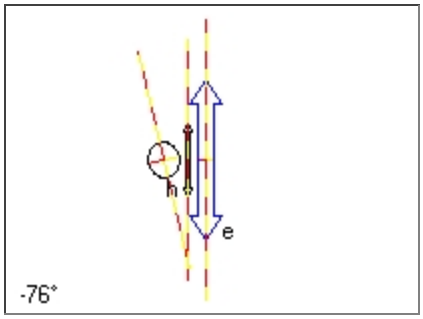
CP5327	**CP5317**	**CP5328**
		
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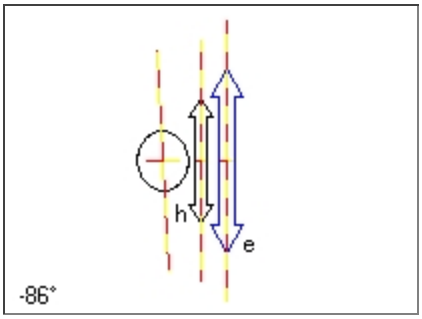
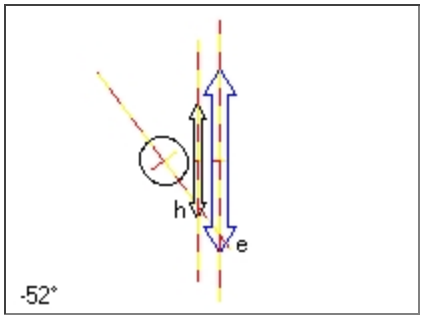
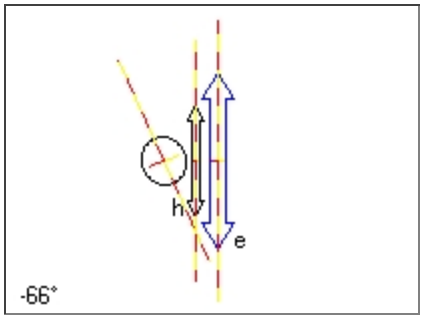
CP5330	**CP5329**	**CP5332**
		
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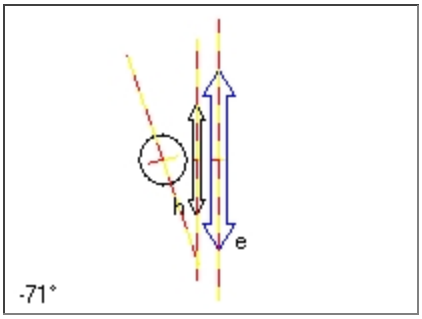
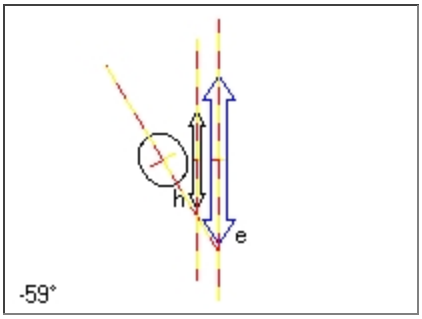
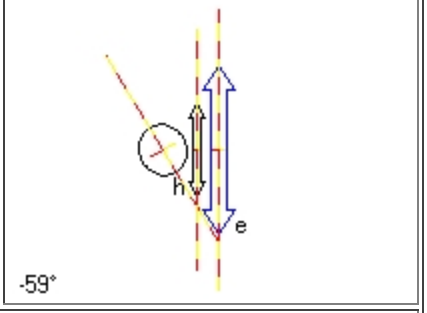
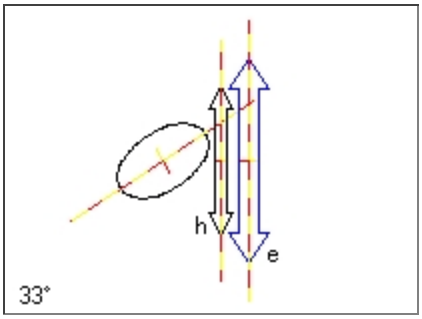
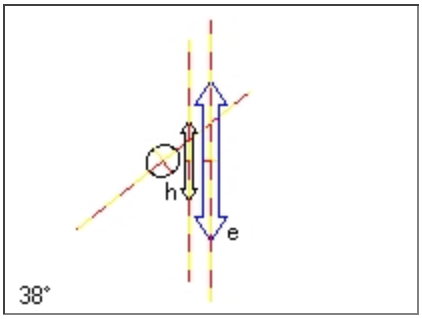
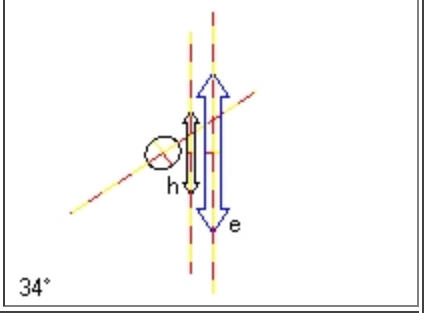
CP5331	CP5315	CP5318
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
CP5326	**CP5314**	**CP5322**
		
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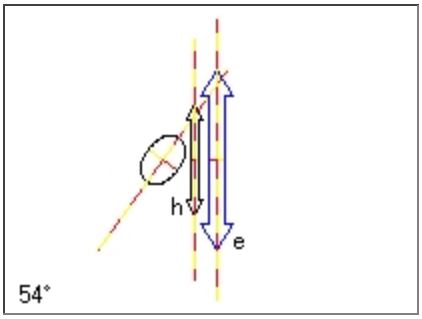
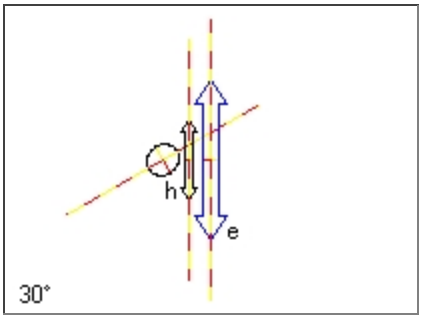
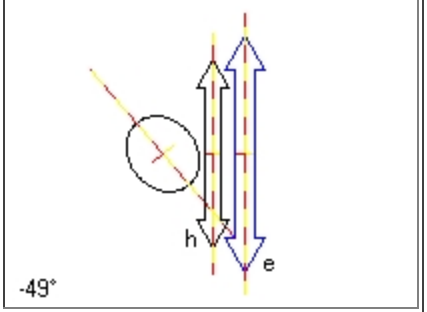
CP5320	**CP5321**	**CP5319**
		
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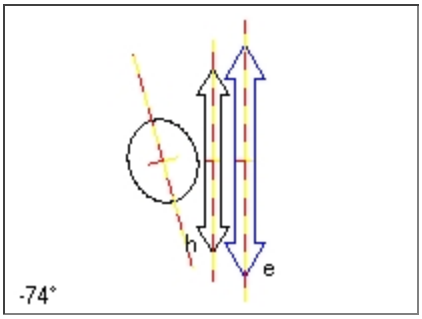
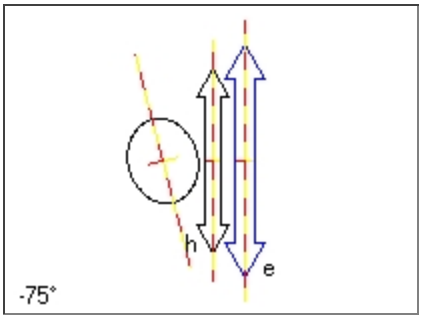
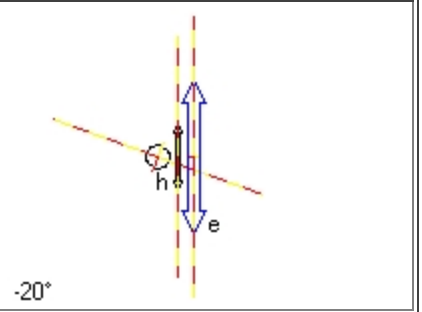
CP5323	**CP5324**	**CP5306**
		
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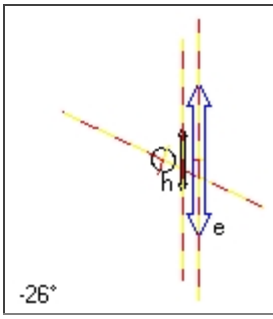
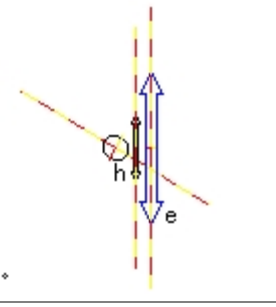
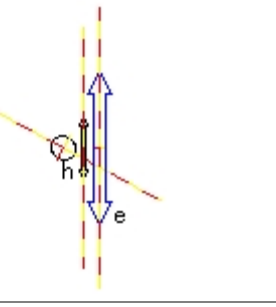
CP5313	CP5303	CP5304
		
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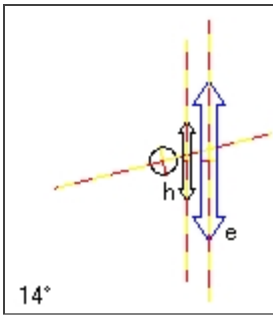
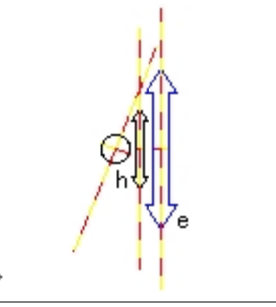
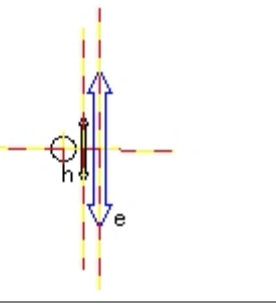
CP5307	**CP5312**	**CP5305**
		
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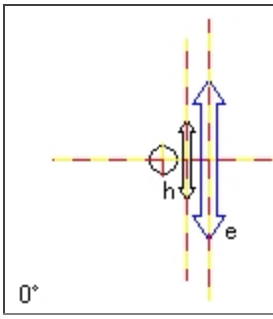
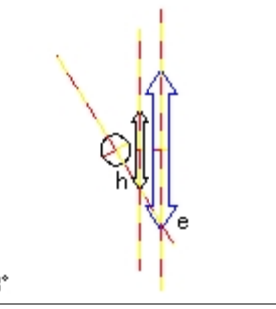
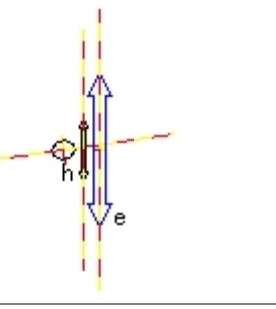
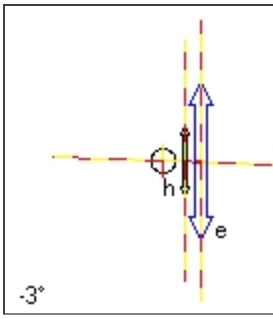
CP5308	**CP5310**	**CP5309**
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		
CP5311		
		
Tick Size: 0.0100m Horizontal Bivariate Scalar: 2.45σ Vertical Univariate Scalar: 1.96σ		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

Covariant Terms

Adjustment performed in NAD 1983 (Conus)

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1204	CP1200	**Az.**	15°02'09.6148"	0°00'00.1363"	1:1880061	1:1880061
		ΔHt.	0.829m	0.013m		
		ΔElev.	0.894m	0.058m		
		Dist.	7506.108m	0.004m		
CP1204	872 2625 1	**Az.**	347°28'03.6947"	0°00'00.0734"	1:2996348	1:2996348
		ΔHt.	2.632m	0.010m		
		ΔElev.	2.662m	0.040m		
		Dist.	9839.112m	0.003m		
CP1204	CP1209	**Az.**	274°24'49.9045"	0°00'00.1269"	1:1648331	1:1648331
		ΔHt.	0.895m	0.009m		
		ΔElev.	0.852m	0.057m		
		Dist.	5652.538m	0.003m		
CP1204	CP1201	**Az.**	101°05'39.1525"	0°00'00.1341"	1:1485456	1:1485456
		ΔHt.	0.651m	0.014m		
		ΔElev.	0.711m	0.058m		
		Dist.	8415.737m	0.006m		
CP1204	CP1237	**Az.**	171°50'16.7589"	0°00'00.1334"	1:1733295	1:1733295
		ΔHt.	0.617m	0.010m		
		ΔElev.	0.597m	0.057m		
		Dist.	6301.630m	0.004m		
CP1204	CP3006	**Az.**	258°24'34.6886"	0°00'00.3609"	1:452236	1:452236
		ΔHt.	1.379m	0.013m		
		ΔElev.	1.362m	0.058m		
		Dist.	1998.390m	0.004m		
CP1200	CP1198	**Az.**	87°52'56.5257"	0°00'00.1350"	1:1454485	1:1454485
		ΔHt.	1.529m	0.018m		
		ΔElev.	1.633m	0.059m		
		Dist.	8635.207m	0.006m		
CP1200	CP1145	**Az.**	307°21'22.3915"	0°00'00.1171"	1:1338120	1:1338120
		ΔHt.	7.899m	0.013m		
		ΔElev.	7.880m	0.058m		
		Dist.	7392.424m	0.006m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1200	S 2 27	**Az.**	325°23'01.9782"	0°00'00.0932"	1:1946357	1:1946357
		ΔHt.	8.972m	0.015m		
		ΔElev.	8.985m	0.041m		
		Dist.	7839.156m	0.004m		
CP1200	CP5102	**Az.**	315°19'44.4907"	0°00'00.3163"	1:582503	1:582503
		ΔHt.	-0.885m	0.012m		
		ΔElev.	-0.886m	0.058m		
		Dist.	2240.262m	0.004m		
CP1200	CP5101	**Az.**	332°40'05.7387"	0°00'00.3439"	1:598710	1:598710
		ΔHt.	-1.275m	0.014m		
		ΔElev.	-1.264m	0.059m		
		Dist.	2778.048m	0.005m		
CP1200	CP5118	**Az.**	77°58'15.9434"	0°00'00.3678"	1:685446	1:685446
		ΔHt.	-0.068m	0.017m		
		ΔElev.	-0.025m	0.059m		
		Dist.	3318.074m	0.005m		
CP1200	CP5111	**Az.**	54°13'03.0227"	0°00'00.2412"	1:1062868	1:1062868
		ΔHt.	-0.465m	0.016m		
		ΔElev.	-0.388m	0.059m		
		Dist.	4864.229m	0.005m		
CP1143	CP1141	**Az.**	33°02'07.1162"	0°00'00.1341"	1:1491119	1:1491119
		ΔHt.	-0.145m	0.006m		
		ΔElev.	-0.077m	0.040m		
		Dist.	3282.419m	0.002m		
CP1143	CP1144	**Az.**	218°12'29.2686"	0°00'00.1517"	1:1232913	1:1232913
		ΔHt.	1.897m	0.011m		
		ΔElev.	1.841m	0.057m		
		Dist.	2852.488m	0.002m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1143	CP1142	**Az.**	63°25'47.1986"	0°00'00.2043"	1:833992	1:833992
		ΔHt.	0.610m	0.005m		
		ΔElev.	0.647m	0.056m		
		Dist.	1813.583m	0.002m		
CP1143	FDEM-PB1	**Az.**	94°16'24.4738"	0°00'00.1031"	1:1750004	1:1750004
		ΔHt.	-0.084m	0.006m		
		ΔElev.	-0.039m	0.056m		
		Dist.	3565.059m	0.002m		
CP1141	CP1142	**Az.**	184°56'16.7724"	0°00'00.2059"	1:1230742	1:1230742
		ΔHt.	0.755m	0.005m		
		ΔElev.	0.724m	0.040m		
		Dist.	1947.766m	0.002m		
CP1141	CP1140	**Az.**	342°02'17.2622"	0°00'00.2580"	1:892232	1:892232
		ΔHt.	-0.119m	0.008m		
		ΔElev.	-0.077m	0.040m		
		Dist.	2138.475m	0.002m		
CP1141	CP1247	**Az.**	77°00'26.1006"	0°00'00.0856"	1:2037284	1:2037284
		ΔHt.	-0.440m	0.007m		
		ΔElev.	-0.315m	0.040m		
		Dist.	5622.396m	0.003m		
CP1141	FDEM-PB1	**Az.**	149°40'22.9078"	0°00'00.1225"	1:1921478	1:1921478
		ΔHt.	0.061m	0.005m		
		ΔElev.	0.037m	0.040m		
		Dist.	3496.084m	0.002m		
CP1141	CP5104	**Az.**	138°45'36.7078"	0°00'00.1860"	1:880999	1:880999
		ΔHt.	-0.468m	0.007m		
		ΔElev.	-0.472m	0.040m		
		Dist.	2455.019m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1198	CP1241	**Az.**	318°26'05.0688"	0°00'00.1393"	1:1251808	1:1251808
		ΔHt.	-1.462m	0.016m		
		ΔElev.	-1.447m	0.058m		
		Dist.	7652.281m	0.006m		
CP1198	CP1196	**Az.**	65°06'04.9999"	0°00'00.1491"	1:1723259	1:1723259
		ΔHt.	-2.400m	0.015m		
		ΔElev.	-2.195m	0.060m		
		Dist.	9539.195m	0.006m		
CP1198	CP3004	**Az.**	141°12'48.6008"	0°00'00.1981"	1:835918	1:835918
		ΔHt.	-0.917m	0.013m		
		ΔElev.	-0.922m	0.060m		
		Dist.	4607.114m	0.006m		
CP1198	CP5118	**Az.**	273°59'44.7372"	0°00'00.2381"	1:955806	1:955806
		ΔHt.	-1.597m	0.019m		
		ΔElev.	-1.658m	0.059m		
		Dist.	5396.957m	0.006m		
CP1198	CP5111	**Az.**	298°22'16.5485"	0°00'00.2132"	1:876387	1:876387
		ΔHt.	-1.994m	0.018m		
		ΔElev.	-2.021m	0.059m		
		Dist.	5320.598m	0.006m		
G 489	CP1139	**Az.**	202°33'13.9323"	0°00'00.4163"	1:598648	1:598648
		ΔHt.	-2.350m	0.012m		
		ΔElev.	-2.403m	0.041m		
		Dist.	1834.309m	0.003m		
G 489	CP1138	**Az.**	57°49'15.3326"	0°00'00.4320"	1:530093	1:530093
		ΔHt.	4.243m	0.013m		
		ΔElev.	4.329m	0.000m		
		Dist.	2448.207m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
G 489	CP1247	**Az.**	133°38'50.1194"	0°00'00.0591"	1:3164400	1:3164400
		ΔHt.	-3.497m	0.012m		
		ΔElev.	-3.539m	0.040m		
		Dist.	8239.268m	0.003m		
CP1139	LICAN	**Az.**	178°14'27.3974"	0°00'00.3101"	1:763717	1:763717
		ΔHt.	6.197m	0.011m		
		ΔElev.	6.133m	0.041m		
		Dist.	2410.941m	0.003m		
CP1139	CP1247	**Az.**	120°55'11.3151"	0°00'00.0979"	1:1777231	1:1777231
		ΔHt.	-1.148m	0.012m		
		ΔElev.	-1.136m	0.058m		
		Dist.	7769.939m	0.004m		
CP1144	CP1241	**Az.**	96°45'22.6902"	0°00'00.0898"	1:2074442	1:2074442
		ΔHt.	-1.209m	0.013m		
		ΔElev.	-1.117m	0.057m		
		Dist.	8243.331m	0.004m		
CP1144	FDEM-PB1	**Az.**	69°36'58.2877"	0°00'00.0792"	1:2174970	1:2174970
		ΔHt.	-1.981m	0.011m		
		ΔElev.	-1.880m	0.057m		
		Dist.	5674.530m	0.003m		
CP1144	S 2 27	**Az.**	161°50'56.2907"	0°00'00.9313"	1:253511	1:253511
		ΔHt.	7.696m	0.009m		
		ΔElev.	7.682m	0.041m		
		Dist.	591.808m	0.002m		
CP1144	CP5117	**Az.**	117°24'13.9600"	0°00'00.1821"	1:1020898	1:1020898
		ΔHt.	-1.203m	0.011m		
		ΔElev.	-1.186m	0.058m		
		Dist.	3811.294m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1144	CP5108	**Az.**	99°21'05.2556"	0°00'00.1789"	1:1066592	1:1066592
		ΔHt.	-1.610m	0.009m		
		ΔElev.	-1.576m	0.058m		
		Dist.	3449.824m	0.003m		
CP1144	CP5109	**Az.**	109°44'41.4632"	0°00'00.2061"	1:940180	1:940180
		ΔHt.	-0.910m	0.009m		
		ΔElev.	-0.888m	0.058m		
		Dist.	3110.495m	0.003m		
CP1142	CP1247	**Az.**	60°25'15.4969"	0°00'00.0827"	1:2375271	1:2375271
		ΔHt.	-1.195m	0.008m		
		ΔElev.	-1.039m	0.057m		
		Dist.	6492.158m	0.003m		
CP1142	FDEM-PB1	**Az.**	119°07'40.6418"	0°00'00.1746"	1:1187069	1:1187069
		ΔHt.	-0.695m	0.005m		
		ΔElev.	-0.686m	0.056m		
		Dist.	2212.808m	0.002m		
CP1142	CP5104	**Az.**	86°58'17.5785"	0°00'00.2530"	1:640032	1:640032
		ΔHt.	-1.224m	0.007m		
		ΔElev.	-1.196m	0.057m		
		Dist.	1788.534m	0.003m		
LICAN	CP1140	**Az.**	150°50'14.8072"	0°00'00.4403"	1:470648	1:470648
		ΔHt.	-7.023m	0.006m		
		ΔElev.	-7.031m	0.040m		
		Dist.	931.113m	0.002m		
LICAN	CP1247	**Az.**	103°30'05.7188"	0°00'00.0678"	1:2494190	1:2494190
		ΔHt.	-7.345m	0.008m		
		ΔElev.	-7.269m	0.040m		
		Dist.	6779.065m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1138	CP1137	**Az.**	39°06'56.8233"	0°00'00.2009"	1:937875	1:937875
		ΔHt.	-5.763m	0.013m		
		ΔElev.	-5.557m	0.000m		
		Dist.	5515.877m	0.006m		
CP1138	CP1193	**Az.**	104°34'51.7935"	0°00'00.1712"	1:1026150	1:1026150
		ΔHt.	-6.336m	0.012m		
		ΔElev.	-6.286m	0.041m		
		Dist.	5491.630m	0.005m		
CP1138	CP5300	**Az.**	45°42'24.7161"	0°00'00.1601"	1:1281231	1:1281231
		ΔHt.	-6.817m	0.047m		
		ΔElev.	-6.211m	0.062m		
		Dist.	15216.256m	0.012m		
CP1138	CP5341	**Az.**	164°30'06.2482"	0°00'00.1578"	1:1231928	1:1231928
		ΔHt.	-7.957m	0.029m		
		ΔElev.	-8.187m	0.048m		
		Dist.	11441.380m	0.009m		
CP1138	CP5343	**Az.**	97°34'54.8486"	0°00'00.2158"	1:1013098	1:1013098
		ΔHt.	-7.431m	0.038m		
		ΔElev.	-7.282m	0.055m		
		Dist.	10181.296m	0.010m		
CP1137	700-93-06-B08	**Az.**	129°42'16.6456"	0°00'00.1983"	1:1188008	1:1188008
		ΔHt.	-1.394m	0.013m		
		ΔElev.	-1.438m	0.041m		
		Dist.	6242.347m	0.005m		
CP1137	Star	**Az.**	12°39'43.4799"	0°00'00.1491"	1:1728216	1:1728216
		ΔHt.	4.552m	0.019m		
		ΔElev.	4.940m	0.000m		
		Dist.	9082.480m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1137	CP1245	**Az.**	64°49'11.3096"	0°00'00.2341"	1:826371	1:826371
		ΔHt.	-2.287m	0.017m		
		ΔElev.	-2.097m	0.042m		
		Dist.	5634.017m	0.007m		
CP1140	CP1247	**Az.**	97°08'56.5086"	0°00'00.0805"	1:2084641	1:2084641
		ΔHt.	-0.321m	0.008m		
		ΔElev.	-0.238m	0.057m		
		Dist.	6186.058m	0.003m		
CP1145	S 2 27	**Az.**	35°52'06.5162"	0°00'00.3512"	1:764422	1:764422
		ΔHt.	1.073m	0.012m		
		ΔElev.	1.105m	0.040m		
		Dist.	2426.820m	0.003m		
CP1145	CP1146	**Az.**	267°37'28.7920"	0°00'00.2965"	1:522056	1:522056
		ΔHt.	-6.830m	0.007m		
		ΔElev.	-6.871m	0.040m		
		Dist.	1997.732m	0.004m		
CP1247	CP1197	**Az.**	129°25'06.5842"	0°00'00.1201"	1:1496651	1:1496651
		ΔHt.	0.794m	0.011m		
		ΔElev.	0.786m	0.057m		
		Dist.	6242.979m	0.004m		
CP1247	CP5104	**Az.**	231°09'56.5741"	0°00'00.1366"	1:1787605	1:1787605
		ΔHt.	-0.028m	0.009m		
		ΔElev.	-0.157m	0.057m		
		Dist.	4957.132m	0.003m		
700-93-06-B08	CP1192	**Az.**	96°50'40.6972"	0°00'00.2697"	1:676343	1:676343
		ΔHt.	-0.542m	0.011m		
		ΔElev.	-0.480m	0.058m		
		Dist.	3481.218m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
700-93-06-B08	CP1193	**Az.**	240°35'46.1044"	0°00'00.1806"	1:836272	1:836272
		ΔHt.	0.821m	0.008m		
		ΔElev.	0.709m	0.058m		
		Dist.	3409.037m	0.004m		
CP1241	FDEM-PB1	**Az.**	315°49'09.7415"	0°00'00.1636"	1:1418764	1:1418764
		ΔHt.	-0.772m	0.007m		
		ΔElev.	-0.763m	0.057m		
		Dist.	4110.916m	0.003m		
CP1241	S 2 27	**Az.**	272°57'06.8231"	0°00'00.0838"	1:2208506	1:2208506
		ΔHt.	8.904m	0.013m		
		ΔElev.	8.800m	0.040m		
		Dist.	8012.090m	0.004m		
CP1241	CP1197	**Az.**	60°04'48.5260"	0°00'00.1326"	1:1462733	1:1462733
		ΔHt.	-0.479m	0.011m		
		ΔElev.	-0.329m	0.057m		
		Dist.	6545.202m	0.004m		
CP1241	CP5116	**Az.**	236°48'46.6268"	0°00'00.3058"	1:1125629	1:1125629
		ΔHt.	-0.468m	0.007m		
		ΔElev.	-0.524m	0.057m		
		Dist.	2966.394m	0.003m		
CP1241	CP5112	**Az.**	269°41'01.1010"	0°00'00.5891"	1:427589	1:427589
		ΔHt.	0.296m	0.016m		
		ΔElev.	0.253m	0.059m		
		Dist.	3200.964m	0.007m		
CP1241	CP5119	**Az.**	183°37'54.5514"	0°00'01.6577"	1:98503	1:98503
		ΔHt.	-1.461m	0.007m		
		ΔElev.	-1.467m	0.057m		
		Dist.	384.095m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1192	CP1234	**Az.**	143°34'44.0560"	0°00'00.1468"	1:1655773	1:1655773
		ΔHt.	1.686m	0.013m		
		ΔElev.	1.627m	0.041m		
		Dist.	8219.502m	0.005m		
CP1192	CP1245	**Az.**	335°06'17.1304"	0°00'00.1551"	1:1291276	1:1291276
		ΔHt.	-0.351m	0.016m		
		ΔElev.	-0.178m	0.059m		
		Dist.	7497.161m	0.006m		
CP1192	CP1206	**Az.**	76°25'11.0866"	0°00'00.1436"	1:1224451	1:1224451
		ΔHt.	0.913m	0.018m		
		ΔElev.	1.156m	0.059m		
		Dist.	8221.195m	0.007m		
FDEM-PB1	CP1193	**Az.**	27°27'40.3066"	0°00'00.0861"	1:2452271	1:2452271
		ΔHt.	0.903m	0.011m		
		ΔElev.	1.230m	0.057m		
		Dist.	11145.928m	0.005m		
FDEM-PB1	CP1197	**Az.**	87°51'49.6192"	0°00'00.0794"	1:2145421	1:2145421
		ΔHt.	0.294m	0.010m		
		ΔElev.	0.433m	0.057m		
		Dist.	8543.740m	0.004m		
FDEM-PB1	C 414	**Az.**	253°32'20.9108"	0°00'00.0337"	1:5444283	1:5444283
		ΔHt.	8.272m	0.007m		
		ΔElev.	8.096m	0.040m		
		Dist.	11231.155m	0.002m		
FDEM-PB1	CP1153	**Az.**	279°37'23.4412"	0°00'00.0268"	1:6575505	1:6575505
		ΔHt.	3.822m	0.011m		
		ΔElev.	3.486m	0.057m		
		Dist.	26060.817m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
FDEM-PB1	LO 7	**Az.**	271°42'14.4028"	0°00'00.0205"	1:9164611	1:9164611
		ΔHt.	3.620m	0.013m		
		ΔElev.	3.372m	0.040m		
		Dist.	18705.386m	0.002m		
FDEM-PB1	CP1148	**Az.**	256°50'46.3188"	0°00'00.0417"	1:3957021	1:3957021
		ΔHt.	1.525m	0.008m		
		ΔElev.	1.330m	0.056m		
		Dist.	12218.166m	0.003m		
FDEM-PB1	CP1304-PA1	**Az.**	273°11'26.7687"	0°00'00.0352"	1:4764498	1:4764498
		ΔHt.	1.528m	0.012m		
		ΔElev.	1.196m	0.057m		
		Dist.	23678.760m	0.005m		
FDEM-PB1	CP1150	**Az.**	265°52'04.9136"	0°00'00.0371"	1:4531021	1:4531021
		ΔHt.	1.250m	0.010m		
		ΔElev.	0.998m	0.057m		
		Dist.	17143.903m	0.004m		
FDEM-PB1	CP1147	**Az.**	248°12'06.7512"	0°00'00.0575"	1:3646768	1:3646768
		ΔHt.	1.625m	0.008m		
		ΔElev.	1.447m	0.056m		
		Dist.	10478.815m	0.003m		
FDEM-PB1	CP1301-PA1	**Az.**	267°07'42.7562"	0°00'00.0301"	1:5796145	1:5796145
		ΔHt.	0.753m	0.012m		
		ΔElev.	0.398m	0.057m		
		Dist.	23893.070m	0.004m		
FDEM-PB1	CP1156	**Az.**	286°43'17.0102"	0°00'00.0446"	1:3126637	1:3126637
		ΔHt.	1.040m	0.019m		
		ΔElev.	0.660m	0.059m		
		Dist.	33319.488m	0.011m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1193	CP1234	**Az.**	115°19'18.6912"	0°00'00.0793"	1:2654830	1:2654830
		ΔHt.	0.322m	0.011m		
		ΔElev.	0.438m	0.041m		
		Dist.	12511.519m	0.005m		
CP1193	CP3002	**Az.**	158°00'46.2787"	0°00'00.2223"	1:947636	1:947636
		ΔHt.	-1.553m	0.015m		
		ΔElev.	-1.637m	0.059m		
		Dist.	4323.277m	0.005m		
CP1234	CP1197	**Az.**	241°58'39.7168"	0°00'00.1097"	1:1842009	1:1842009
		ΔHt.	-0.932m	0.013m		
		ΔElev.	-1.234m	0.041m		
		Dist.	8970.881m	0.005m		
CP1234	CP1235	**Az.**	130°08'29.3975"	0°00'00.1146"	1:1765521	1:1765521
		ΔHt.	-0.756m	0.015m		
		ΔElev.	-0.812m	0.042m		
		Dist.	9203.692m	0.005m		
CP1234	CP1194	**Az.**	86°23'16.9718"	0°00'00.1406"	1:1496297	1:1496297
		ΔHt.	-1.445m	0.013m		
		ΔElev.	-1.323m	0.041m		
		Dist.	7217.874m	0.005m		
CP1234	CP3002	**Az.**	277°56'15.7802"	0°00'00.1173"	1:1362728	1:1362728
		ΔHt.	-1.876m	0.018m		
		ΔElev.	-2.075m	0.043m		
		Dist.	9783.308m	0.007m		
CP1234	CP3001	**Az.**	62°42'09.5295"	0°00'00.5195"	1:471367	1:471367
		ΔHt.	-2.377m	0.018m		
		ΔElev.	-2.323m	0.044m		
		Dist.	2971.757m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1197	CP1196	**Az.**	121°41'05.7760"	0°00'00.1360"	1:1468055	1:1468055
		ΔHt.	-0.459m	0.018m		
		ΔElev.	-0.419m	0.059m		
		Dist.	9466.161m	0.006m		
C 414	CP1211	**Az.**	222°15'17.0698"	0°00'00.0652"	1:2924594	1:2924594
		ΔHt.	-7.223m	0.008m		
		ΔElev.	-7.347m	0.000m		
		Dist.	8400.266m	0.003m		
C 414	CP1148	**Az.**	289°35'15.4442"	0°00'00.3920"	1:541107	1:541107
		ΔHt.	-6.747m	0.006m		
		ΔElev.	-6.765m	0.040m		
		Dist.	1196.337m	0.002m		
C 414	CP1147	**Az.**	124°11'29.2094"	0°00'00.4156"	1:630045	1:630045
		ΔHt.	-6.647m	0.005m		
		ΔElev.	-6.649m	0.040m		
		Dist.	1259.571m	0.002m		
C 414	CP1209	**Az.**	168°43'49.1294"	0°00'00.0412"	1:5074680	1:5074680
		ΔHt.	-7.500m	0.008m		
		ΔElev.	-7.561m	0.040m		
		Dist.	12864.346m	0.003m		
CP1211	CP1148	**Az.**	34°18'47.4795"	0°00'00.0745"	1:2464236	1:2464236
		ΔHt.	0.476m	0.008m		
		ΔElev.	0.582m	0.040m		
		Dist.	8015.608m	0.003m		
CP1211	CP1150	**Az.**	355°11'58.0024"	0°00'00.0987"	1:2615811	1:2615811
		ΔHt.	0.201m	0.009m		
		ΔElev.	0.250m	0.040m		
		Dist.	8187.779m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1211	CP1149	**Az.**	23°48'44.5249"	0°00'00.0973"	1:2033663	1:2033663
		ΔHt.	0.399m	0.009m		
		ΔElev.	0.481m	0.040m		
		Dist.	7052.348m	0.003m		
CP1211	CP1209	**Az.**	128°04'03.8390"	0°00'00.0624"	1:3289575	1:3289575
		ΔHt.	-0.278m	0.008m		
		ΔElev.	-0.214m	0.040m		
		Dist.	10371.698m	0.003m		
CP1211	BRIDGE 2	**Az.**	188°54'12.4643"	0°00'00.1224"	1:1909686	1:1909686
		ΔHt.	1.391m	0.011m		
		ΔElev.	1.379m	0.000m		
		Dist.	8133.040m	0.004m		
CP1211	CP1260	**Az.**	291°37'17.4557"	0°00'00.2864"	1:670187	1:670187
		ΔHt.	1.099m	0.018m		
		ΔElev.	1.062m	0.043m		
		Dist.	4297.365m	0.006m		
CP1211	CP1255	**Az.**	172°09'25.5055"	0°00'00.1411"	1:1434568	1:1434568
		ΔHt.	-1.087m	0.013m		
		ΔElev.	-1.090m	0.041m		
		Dist.	6521.603m	0.005m		
CP1211	CP1258	**Az.**	99°09'58.5410"	0°00'00.1838"	1:903145	1:903145
		ΔHt.	-1.206m	0.011m		
		ΔElev.	-1.150m	0.041m		
		Dist.	4894.695m	0.005m		
CP1153	CP1305-PA1	**Az.**	187°46'15.1025"	0°00'00.2284"	1:1027402	1:1027402
		ΔHt.	-2.018m	0.007m		
		ΔElev.	-2.049m	0.057m		
		Dist.	2519.505m	0.002m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1153	CP1154	**Az.**	290°06'11.3825"	0°00'00.1411"	1:1375746	1:1375746
		ΔHt.	-2.516m	0.008m		
		ΔElev.	-2.573m	0.057m		
		Dist.	4398.336m	0.003m		
CP1153	CP1152	**Az.**	122°49'14.7619"	0°00'00.3815"	1:542525	1:542525
		ΔHt.	-2.000m	0.010m		
		ΔElev.	-1.978m	0.058m		
		Dist.	2478.126m	0.005m		
CP1153	CP5136	**Az.**	127°31'45.9341"	0°00'00.4766"	1:367805	1:367805
		ΔHt.	-0.763m	0.011m		
		ΔElev.	-0.750m	0.058m		
		Dist.	1657.457m	0.005m		
CP1153	CP5135	**Az.**	136°17'36.1423"	0°00'00.5569"	1:306554	1:306554
		ΔHt.	-2.692m	0.010m		
		ΔElev.	-2.686m	0.058m		
		Dist.	1343.862m	0.004m		
CP1305-PA1	CP1219	**Az.**	231°18'23.7135"	0°00'00.1480"	1:1320953	1:1320953
		ΔHt.	0.629m	0.011m		
		ΔElev.	0.541m	0.058m		
		Dist.	5173.250m	0.004m		
CP1305-PA1	CP1304-PA1	**Az.**	102°38'21.2730"	0°00'00.3151"	1:545238	1:545238
		ΔHt.	-0.276m	0.009m		
		ΔElev.	-0.240m	0.058m		
		Dist.	2458.467m	0.005m		
CP1305-PA1	CP1152	**Az.**	64°32'56.2264"	0°00'00.3027"	1:523011	1:523011
		ΔHt.	0.018m	0.009m		
		ΔElev.	0.071m	0.058m		
		Dist.	2683.617m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1305-PA1	CP1301-PA1	**Az.**	144°26'09.6877"	0°00'00.1897"	1:1234131	1:1234131
		ΔHt.	-1.051m	0.009m		
		ΔElev.	-1.038m	0.057m		
		Dist.	3753.432m	0.003m		
LO 7	CP1151	**Az.**	296°59'28.8715"	0°00'00.2581"	1:719658	1:719658
		ΔHt.	-1.718m	0.010m		
		ΔElev.	-1.756m	0.041m		
		Dist.	2843.053m	0.004m		
LO 7	CP1150	**Az.**	138°11'13.2401"	0°00'00.2892"	1:803200	1:803200
		ΔHt.	-2.370m	0.013m		
		ΔElev.	-2.373m	0.040m		
		Dist.	2400.496m	0.003m		
CP1151	CP1303-PA1	**Az.**	164°38'32.9999"	0°00'00.3000"	1:878410	1:878410
		ΔHt.	-1.887m	0.010m		
		ΔElev.	-1.902m	0.058m		
		Dist.	3116.424m	0.004m		
CP1151	CP1152	**Az.**	295°48'41.4403"	0°00'00.3708"	1:516162	1:516162
		ΔHt.	-0.080m	0.011m		
		ΔElev.	-0.108m	0.058m		
		Dist.	2652.257m	0.005m		
CP1148	CP1149	**Az.**	264°15'29.3402"	0°00'00.2861"	1:575503	1:575503
		ΔHt.	-0.076m	0.007m		
		ΔElev.	-0.101m	0.057m		
		Dist.	1679.680m	0.003m		
CP1303-PA1	CP1304-PA1	**Az.**	307°19'39.4904"	0°00'00.2018"	1:1004274	1:1004274
		ΔHt.	1.514m	0.009m		
		ΔElev.	1.482m	0.058m		
		Dist.	4071.740m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1303-PA1	CP1150	**Az.**	91°16'35.2631"	0°00'00.2721"	1:607285	1:607285
		ΔHt.	1.236m	0.013m		
		ΔElev.	1.284m	0.057m		
		Dist.	3309.863m	0.005m		
CP1303-PA1	CP1302-PA1	**Az.**	274°12'38.0153"	0°00'00.3257"	1:498954	1:498954
		ΔHt.	0.267m	0.010m		
		ΔElev.	0.231m	0.058m		
		Dist.	2411.292m	0.005m		
CP1303-PA1	CP2009	**Az.**	180°10'12.3903"	0°00'04.5798"	1:49844	1:49844
		ΔHt.	0.187m	0.009m		
		ΔElev.	0.185m	0.058m		
		Dist.	178.837m	0.004m		
CP1219	CP1222	**Az.**	299°29'06.4126"	0°00'00.0998"	1:1800260	1:1800260
		ΔHt.	0.100m	0.014m		
		ΔElev.	0.011m	0.058m		
		Dist.	9296.245m	0.005m		
CP1219	CP1218	**Az.**	174°44'28.1063"	0°00'00.1695"	1:1504814	1:1504814
		ΔHt.	0.143m	0.022m		
		ΔElev.	0.145m	0.061m		
		Dist.	9138.002m	0.006m		
CP1219	CP1154	**Az.**	1°56'32.7069"	0°00'00.1139"	1:2116654	1:2116654
		ΔHt.	-1.128m	0.010m		
		ΔElev.	-1.065m	0.058m		
		Dist.	7246.339m	0.003m		
CP1219	CP1301-PA1	**Az.**	88°19'01.7984"	0°00'00.1279"	1:1399704	1:1399704
		ΔHt.	-1.680m	0.012m		
		ΔElev.	-1.579m	0.058m		
		Dist.	6223.399m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1219	CP5134	**Az.**	30°16'59.4349"	0°00'00.2742"	1:978127	1:978127
		ΔHt.	0.731m	0.010m		
		ΔElev.	0.766m	0.059m		
		Dist.	2640.168m	0.003m		
CP1219	CP5132	**Az.**	15°50'42.7612"	0°00'00.2380"	1:1185893	1:1185893
		ΔHt.	-0.101m	0.010m		
		ΔElev.	-0.070m	0.059m		
		Dist.	3054.783m	0.003m		
CP1219	CP5131	**Az.**	29°19'25.4060"	0°00'00.2256"	1:1183927	1:1183927
		ΔHt.	-0.185m	0.010m		
		ΔElev.	-0.142m	0.059m		
		Dist.	3227.230m	0.003m		
CP1304-PA1	CP1302-PA1	**Az.**	160°00'43.7750"	0°00'00.3997"	1:650059	1:650059
		ΔHt.	-1.247m	0.009m		
		ΔElev.	-1.251m	0.058m		
		Dist.	2438.625m	0.004m		
CP1304-PA1	CP1152	**Az.**	0°50'01.1167"	0°00'00.6710"	1:400510	1:400510
		ΔHt.	0.294m	0.010m		
		ΔElev.	0.311m	0.058m		
		Dist.	1691.372m	0.004m		
CP1304-PA1	CP2009	**Az.**	129°15'57.6946"	0°00'00.2040"	1:867000	1:867000
		ΔHt.	-1.327m	0.011m		
		ΔElev.	-1.297m	0.058m		
		Dist.	4182.189m	0.005m		
CP1150	CP1214	**Az.**	232°52'31.1931"	0°00'00.1186"	1:1622847	1:1622847
		ΔHt.	-0.048m	0.014m		
		ΔElev.	-0.170m	0.058m		
		Dist.	8216.978m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1150	CP1149	**Az.**	115°47'18.3422"	0°00'00.1730"	1:1256389	1:1256389
		ΔHt.	0.198m	0.008m		
		ΔElev.	0.231m	0.057m		
		Dist.	3923.384m	0.003m		
CP1147	CP1146	**Az.**	120°30'01.3678"	0°00'00.4535"	1:574952	1:574952
		ΔHt.	0.149m	0.006m		
		ΔElev.	0.140m	0.040m		
		Dist.	1363.911m	0.002m		
CP1147	CP1209	**Az.**	172°57'26.3662"	0°00'00.0523"	1:3517730	1:3517730
		ΔHt.	-0.853m	0.008m		
		ΔElev.	-0.912m	0.056m		
		Dist.	11999.122m	0.003m		
CP1222	CP1157	**Az.**	18°18'05.0930"	0°00'00.1594"	1:1389703	1:1389703
		ΔHt.	-1.158m	0.015m		
		ΔElev.	-1.056m	0.059m		
		Dist.	7029.919m	0.005m		
CP1222	CP1154	**Az.**	72°13'41.5625"	0°00'00.1092"	1:1872290	1:1872290
		ΔHt.	-1.228m	0.014m		
		ΔElev.	-1.076m	0.058m		
		Dist.	8753.874m	0.005m		
CP1222	CP1158	**Az.**	4°49'05.6398"	0°00'00.1473"	1:1184902	1:1184902
		ΔHt.	-1.624m	0.016m		
		ΔElev.	-1.541m	0.059m		
		Dist.	7077.277m	0.006m		
CP1222	CP1223	**Az.**	259°18'59.4019"	0°00'00.1470"	1:1334179	1:1334179
		ΔHt.	1.270m	0.017m		
		ΔElev.	1.175m	0.059m		
		Dist.	8148.519m	0.006m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1222	AIRPORT	**Az.**	202°39'56.1534"	0°00'00.3976"	1:429141	1:429141
		ΔHt.	-0.102m	0.011m		
		ΔElev.	-0.112m	0.041m		
		Dist.	1720.354m	0.004m		
CP1222	CP1159	**Az.**	341°29'30.8382"	0°00'00.1285"	1:1725605	1:1725605
		ΔHt.	-0.889m	0.016m		
		ΔElev.	-0.844m	0.058m		
		Dist.	8175.708m	0.005m		
CP1218	CP1214	**Az.**	52°31'33.8146"	0°00'00.2100"	1:945481	1:945481
		ΔHt.	-1.373m	0.023m		
		ΔElev.	-1.294m	0.061m		
		Dist.	7057.107m	0.007m		
CP1218	CP1220	**Az.**	239°31'05.0842"	0°00'00.1701"	1:1099898	1:1099898
		ΔHt.	1.067m	0.023m		
		ΔElev.	0.989m	0.061m		
		Dist.	9300.562m	0.008m		
CP1157	CP1154	**Az.**	123°09'26.1810"	0°00'00.1286"	1:1082336	1:1082336
		ΔHt.	-0.070m	0.014m		
		ΔElev.	-0.020m	0.059m		
		Dist.	7319.797m	0.007m		
CP1157	CP1156	**Az.**	94°15'07.1457"	0°00'00.4266"	1:416066	1:416066
		ΔHt.	-0.335m	0.017m		
		ΔElev.	-0.273m	0.060m		
		Dist.	4039.331m	0.010m		
CP1157	CP1158	**Az.**	283°11'47.4814"	0°00'00.7448"	1:326097	1:326097
		ΔHt.	-0.466m	0.015m		
		ΔElev.	-0.485m	0.060m		
		Dist.	1656.734m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1154	CP1155	**Az.**	347°49'30.4682"	0°00'00.7636"	1:257402	1:257402
		ΔHt.	0.347m	0.017m		
		ΔElev.	0.388m	0.041m		
		Dist.	2078.872m	0.008m		
CP1214	CP1301-PA1	**Az.**	357°32'05.7883"	0°00'00.1882"	1:1264129	1:1264129
		ΔHt.	-0.450m	0.012m		
		ΔElev.	-0.430m	0.058m		
		Dist.	4993.109m	0.004m		
CP1214	CP1213	**Az.**	173°55'16.7577"	0°00'00.1113"	1:2140619	1:2140619
		ΔHt.	-0.028m	0.013m		
		ΔElev.	-0.031m	0.058m		
		Dist.	8122.427m	0.004m		
CP1214	CP1260	**Az.**	116°28'09.2196"	0°00'00.3151"	1:614840	1:614840
		ΔHt.	0.945m	0.018m		
		ΔElev.	0.982m	0.059m		
		Dist.	3622.762m	0.006m		
CP1214	CP1262	**Az.**	197°38'59.7326"	0°00'00.1239"	1:1874037	1:1874037
		ΔHt.	-0.195m	0.019m		
		ΔElev.	-0.243m	0.060m		
		Dist.	10188.868m	0.005m		
CP1214	CP3010	**Az.**	207°14'56.4194"	0°00'00.7929"	1:267271	1:267271
		ΔHt.	0.554m	0.021m		
		ΔElev.	0.539m	0.060m		
		Dist.	1779.800m	0.007m		
CP1302-PA1	CP2000	**Az.**	352°27'10.2647"	0°00'04.3559"	1:58316	1:58316
		ΔHt.	-0.475m	0.008m		
		ΔElev.	-0.475m	0.058m		
		Dist.	160.169m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1302-PA1	CP2005	**Az.**	264°14'10.9852"	0°00'00.5531"	1:313113	1:313113
		ΔHt.	0.425m	0.010m		
		ΔElev.	0.406m	0.058m		
		Dist.	1161.060m	0.004m		
CP1146	872 2625 1	**Az.**	118°20'30.6262"	0°00'00.1360"	1:1777292	1:1777292
		ΔHt.	0.734m	0.007m		
		ΔElev.	0.759m	0.000m		
		Dist.	4307.874m	0.002m		
CP1146	CP1209	**Az.**	178°29'36.7238"	0°00'00.0600"	1:3048342	1:3048342
		ΔHt.	-1.003m	0.009m		
		ΔElev.	-1.052m	0.040m		
		Dist.	11220.250m	0.004m		
872 2625 1	CP1209	**Az.**	200°53'10.3508"	0°00'00.0518"	1:3726470	1:3726470
		ΔHt.	-1.736m	0.009m		
		ΔElev.	-1.811m	0.040m		
		Dist.	9815.201m	0.003m		
872 2625 1	CP1259	**Az.**	208°48'22.0493"	0°00'00.2775"	1:1081872	1:1081872
		ΔHt.	-2.241m	0.012m		
		ΔElev.	-2.273m	0.041m		
		Dist.	4075.749m	0.004m		
872 2625 1	CP1258	**Az.**	242°30'54.5434"	0°00'00.1486"	1:1795634	1:1795634
		ΔHt.	-2.665m	0.012m		
		ΔElev.	-2.747m	0.041m		
		Dist.	7695.993m	0.004m		
872 2625 1	CP5102	**Az.**	106°54'35.4312"	0°00'00.2528"	1:623080	1:623080
		ΔHt.	-2.688m	0.012m		
		ΔElev.	-2.654m	0.041m		
		Dist.	2620.470m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
872 2625 1	CP5101	**Az.**	87°42'06.2743"	0°00'00.2904"	1:587813	1:587813
		ΔHt.	-3.078m	0.014m		
		ΔElev.	-3.032m	0.042m		
		Dist.	2808.612m	0.005m		
CP1209	BRIDGE 2	**Az.**	260°09'55.2889"	0°00'00.0889"	1:1961771	1:1961771
		ΔHt.	1.668m	0.011m		
		ΔElev.	1.593m	0.040m		
		Dist.	9565.824m	0.005m		
CP1209	CP1259	**Az.**	15°19'09.6768"	0°00'00.2012"	1:1311195	1:1311195
		ΔHt.	-0.504m	0.013m		
		ΔElev.	-0.463m	0.057m		
		Dist.	5805.554m	0.004m		
CP1209	CP1255	**Az.**	269°31'15.5865"	0°00'00.1291"	1:1634824	1:1634824
		ΔHt.	-0.809m	0.014m		
		ΔElev.	-0.877m	0.057m		
		Dist.	7275.826m	0.004m		
CP1209	CP1258	**Az.**	329°20'36.8824"	0°00'00.1418"	1:1096988	1:1096988
		ΔHt.	-0.929m	0.012m		
		ΔElev.	-0.936m	0.057m		
		Dist.	6530.178m	0.006m		
CP1209	CP3006	**Az.**	102°47'15.3977"	0°00'00.2026"	1:1012593	1:1012593
		ΔHt.	0.484m	0.012m		
		ΔElev.	0.510m	0.057m		
		Dist.	3772.060m	0.004m		
CP1155	CP1156	**Az.**	315°13'42.3084"	0°00'00.5033"	1:174812	1:174812
		ΔHt.	-0.613m	0.019m		
		ΔElev.	-0.640m	0.043m		
		Dist.	2356.377m	0.013m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1301-PA1	CP2000	**Az.**	69°36'44.2508"	0°00'00.5577"	1:317359	1:317359
		ΔHt.	-0.947m	0.008m		
		ΔElev.	-0.928m	0.058m		
		Dist.	1097.603m	0.003m		
CP1301-PA1	CP2005	**Az.**	315°26'08.9862"	0°00'03.9152"	1:49156	1:49156
		ΔHt.	-0.046m	0.009m		
		ΔElev.	-0.047m	0.058m		
		Dist.	150.041m	0.003m		
BRIDGE 2	CP1213	**Az.**	301°38'42.3875"	0°00'00.1501"	1:1243531	1:1243531
		ΔHt.	-1.265m	0.012m		
		ΔElev.	-1.330m	0.041m		
		Dist.	6017.890m	0.005m		
BRIDGE 2	CP1217	**Az.**	230°09'03.5374"	0°00'00.1158"	1:2185608	1:2185608
		ΔHt.	0.126m	0.023m		
		ΔElev.	0.005m	0.045m		
		Dist.	16823.531m	0.008m		
BRIDGE 2	CP1216	**Az.**	217°47'18.0535"	0°00'00.1828"	1:1332564	1:1332564
		ΔHt.	-2.012m	0.021m		
		ΔElev.	-2.083m	0.045m		
		Dist.	9411.367m	0.007m		
BRIDGE 2	CP1215	**Az.**	252°16'19.9211"	0°00'00.0979"	1:1709753	1:1709753
		ΔHt.	-0.770m	0.016m		
		ΔElev.	-0.879m	0.000m		
		Dist.	11080.831m	0.006m		
BRIDGE 2	CP1212	**Az.**	167°46'31.3633"	0°00'00.1359"	1:1822959	1:1822959
		ΔHt.	-0.718m	0.007m		
		ΔElev.	-0.731m	0.040m		
		Dist.	4950.015m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1213	CP1220	**Az.**	266°20'03.2712"	0°00'00.0816"	1:2168746	1:2168746
		ΔHt.	2.468m	0.018m		
		ΔElev.	2.314m	0.058m		
		Dist.	14509.687m	0.007m		
CP1213	CP1215	**Az.**	219°43'26.6872"	0°00'00.1136"	1:1681546	1:1681546
		ΔHt.	0.495m	0.014m		
		ΔElev.	0.451m	0.041m		
		Dist.	8494.732m	0.005m		
CP1213	CP1260	**Az.**	20°14'43.5011"	0°00'00.1799"	1:1243590	1:1243590
		ΔHt.	0.973m	0.018m		
		ΔElev.	1.013m	0.059m		
		Dist.	6887.379m	0.006m		
CP1213	CP1262	**Az.**	247°32'45.5157"	0°00'00.2364"	1:743785	1:743785
		ΔHt.	-0.168m	0.017m		
		ΔElev.	-0.212m	0.060m		
		Dist.	4273.482m	0.006m		
CP1213	CP1254	**Az.**	163°14'08.2925"	0°00'00.1933"	1:1196688	1:1196688
		ΔHt.	-0.577m	0.015m		
		ΔElev.	-0.563m	0.059m		
		Dist.	5968.484m	0.005m		
CP1213	CP3010	**Az.**	345°32'30.0265"	0°00'00.2106"	1:949804	1:949804
		ΔHt.	0.582m	0.021m		
		ΔElev.	0.570m	0.060m		
		Dist.	6706.998m	0.007m		
Q 519	CP1085	**Az.**	71°33'14.6699"	0°00'00.0435"	1:3904877	1:3904877
		ΔHt.	-1.908m	0.013m		
		ΔElev.	-1.894m	0.042m		
		Dist.	21707.912m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
Q 519	CP1083	**Az.**	84°05'38.0727"	0°00'00.0372"	1:4674024	1:4674024
		ΔHt.	-1.382m	0.012m		
		ΔElev.	-1.368m	0.042m		
		Dist.	22209.467m	0.005m		
Q 519	CP1087	**Az.**	65°26'44.3121"	0°00'00.0334"	1:5341795	1:5341795
		ΔHt.	-1.710m	0.014m		
		ΔElev.	-1.687m	0.000m		
		Dist.	22621.613m	0.004m		
Q 519	CP1084	**Az.**	80°52'54.5530"	0°00'00.0480"	1:3588169	1:3588169
		ΔHt.	-1.489m	0.014m		
		ΔElev.	-1.475m	0.042m		
		Dist.	21977.583m	0.006m		
Q 519	CP1082	**Az.**	91°23'14.2026"	0°00'00.0418"	1:4389266	1:4389266
		ΔHt.	0.227m	0.012m		
		ΔElev.	0.243m	0.042m		
		Dist.	21747.024m	0.005m		
Q 519	CP1080	**Az.**	94°51'53.3980"	0°00'00.0391"	1:4859401	1:4859401
		ΔHt.	0.245m	0.013m		
		ΔElev.	0.278m	0.042m		
		Dist.	24715.325m	0.005m		
Q 519	CP1086	**Az.**	75°00'21.2760"	0°00'00.0669"	1:2633470	1:2633470
		ΔHt.	-1.550m	0.018m		
		ΔElev.	-1.540m	0.044m		
		Dist.	21010.123m	0.008m		
CP1085	CP1242	**Az.**	102°45'07.8846"	0°00'00.1991"	1:1112563	1:1112563
		ΔHt.	0.341m	0.013m		
		ΔElev.	0.368m	0.059m		
		Dist.	6222.306m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1085	CP1087	**Az.**	359°42'51.8963"	0°00'00.4367"	1:509575	1:509575
		ΔHt.	0.198m	0.011m		
		ΔElev.	0.207m	0.042m		
		Dist.	2532.016m	0.005m		
CP1085	CP1084	**Az.**	161°59'01.5408"	0°00'00.3924"	1:685148	1:685148
		ΔHt.	0.420m	0.013m		
		ΔElev.	0.419m	0.060m		
		Dist.	3562.218m	0.005m		
CP1085	CP1086	**Az.**	191°50'07.7439"	0°00'00.9054"	1:199019	1:199019
		ΔHt.	0.358m	0.016m		
		ΔElev.	0.354m	0.061m		
		Dist.	1463.488m	0.007m		
CP1090	C 519	**Az.**	273°12'20.0065"	0°00'00.0551"	1:2992853	1:2992853
		ΔHt.	2.453m	0.019m		
		ΔElev.	2.364m	0.043m		
		Dist.	14726.385m	0.005m		
CP1090	CP1089	**Az.**	215°34'26.1981"	0°00'00.4150"	1:622241	1:622241
		ΔHt.	-0.865m	0.019m		
		ΔElev.	-0.899m	0.061m		
		Dist.	3422.537m	0.006m		
CP1090	Q 529	**Az.**	107°07'05.2089"	0°00'00.2482"	1:667656	1:667656
		ΔHt.	-1.347m	0.014m		
		ΔElev.	-1.343m	0.043m		
		Dist.	3278.177m	0.005m		
CP1090	CP1091	**Az.**	40°28'56.4443"	0°00'00.8672"	1:241505	1:241505
		ΔHt.	-0.283m	0.015m		
		ΔElev.	-0.266m	0.060m		
		Dist.	1340.060m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
C 519	CP1089	**Az.**	105°46'30.2109"	0°00'00.0784"	1:1963840	1:1963840
		ΔHt.	-3.318m	0.022m		
		ΔElev.	-3.263m	0.044m		
		Dist.	13214.162m	0.007m		
C 519	CP1087	**Az.**	124°00'42.1679"	0°00'00.0462"	1:4332890	1:4332890
		ΔHt.	-3.523m	0.018m		
		ΔElev.	-3.487m	0.000m		
		Dist.	17415.008m	0.004m		
C 519	CP1088	**Az.**	119°26'35.4806"	0°00'00.0512"	1:3378007	1:3378007
		ΔHt.	-4.676m	0.019m		
		ΔElev.	-4.635m	0.042m		
		Dist.	16410.937m	0.005m		
C 519	CP1091	**Az.**	89°12'46.4498"	0°00'00.0487"	1:3268877	1:3268877
		ΔHt.	-2.735m	0.018m		
		ΔElev.	-2.630m	0.042m		
		Dist.	15574.559m	0.005m		
C 519	FISH	**Az.**	34°46'54.5868"	0°00'00.0000"	1:0	1:0
		ΔHt.	0.989m	0.014m		
		ΔElev.	1.082m	0.000m		
		Dist.	10442.890m	0.000m		
C 519	CP1094	**Az.**	58°17'47.0151"	0°00'00.1009"	1:2675227	1:2675227
		ΔHt.	0.723m	0.015m		
		ΔElev.	0.835m	0.043m		
		Dist.	11573.065m	0.004m		
C 519	CP1095	**Az.**	38°03'21.9808"	0°00'00.1407"	1:2188933	1:2188933
		ΔHt.	2.704m	0.015m		
		ΔElev.	2.790m	0.043m		
		Dist.	9100.178m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1242	CP1223	**Az.**	81°45'20.0933"	0°00'00.1758"	1:960194	1:960194
		ΔHt.	0.352m	0.009m		
		ΔElev.	0.381m	0.059m		
		Dist.	4025.452m	0.004m		
CP1242	CP1083	**Az.**	234°58'02.9099"	0°00'00.1861"	1:832792	1:832792
		ΔHt.	0.186m	0.015m		
		ΔElev.	0.158m	0.059m		
		Dist.	5591.967m	0.007m		
CP1242	CP1087	**Az.**	302°44'08.7165"	0°00'00.1653"	1:1451058	1:1451058
		ΔHt.	-0.142m	0.012m		
		ΔElev.	-0.161m	0.042m		
		Dist.	7227.492m	0.005m		
CP1242	CP1084	**Az.**	247°57'20.1231"	0°00'00.2093"	1:749241	1:749241
		ΔHt.	0.079m	0.014m		
		ΔElev.	0.051m	0.059m		
		Dist.	5359.888m	0.007m		
CP1242	CP1224	**Az.**	357°34'30.6489"	0°00'00.1236"	1:1883248	1:1883248
		ΔHt.	-1.484m	0.012m		
		ΔElev.	-1.439m	0.059m		
		Dist.	8768.936m	0.005m		
CP1242	CP1086	**Az.**	269°29'51.4491"	0°00'00.2503"	1:815833	1:815833
		ΔHt.	0.018m	0.018m		
		ΔElev.	-0.014m	0.060m		
		Dist.	6369.263m	0.008m		
CP1089	Q 529	**Az.**	70°26'51.7829"	0°00'00.2119"	1:867442	1:867442
		ΔHt.	-0.481m	0.018m		
		ΔElev.	-0.444m	0.044m		
		Dist.	5437.270m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1089	CP1088	**Az.**	160°40'02.5192"	0°00'00.2905"	1:796762	1:796762
		ΔHt.	-1.358m	0.018m		
		ΔElev.	-1.372m	0.061m		
		Dist.	4743.608m	0.006m		
CP1161	Q 529	**Az.**	269°34'57.6746"	0°00'00.0627"	1:2722156	1:2722156
		ΔHt.	1.816m	0.012m		
		ΔElev.	1.691m	0.041m		
		Dist.	9483.438m	0.003m		
CP1161	CP1160	**Az.**	110°08'44.2617"	0°00'00.2834"	1:813097	1:813097
		ΔHt.	0.313m	0.009m		
		ΔElev.	0.335m	0.058m		
		Dist.	2511.624m	0.003m		
CP1161	A 524	**Az.**	340°25'37.2315"	0°00'00.1130"	1:2256173	1:2256173
		ΔHt.	5.848m	0.010m		
		ΔElev.	5.928m	0.041m		
		Dist.	6413.564m	0.003m		
CP1161	CP1163	**Az.**	335°31'50.8337"	0°00'00.1585"	1:1476868	1:1476868
		ΔHt.	1.316m	0.012m		
		ΔElev.	1.364m	0.059m		
		Dist.	5365.245m	0.004m		
CP1161	CP1162	**Az.**	320°15'12.9498"	0°00'00.2557"	1:762680	1:762680
		ΔHt.	1.015m	0.015m		
		ΔElev.	1.024m	0.060m		
		Dist.	3483.939m	0.005m		
CP1161	CP5141	**Az.**	196°05'07.7749"	0°00'00.4830"	1:363332	1:363332
		ΔHt.	-0.179m	0.011m		
		ΔElev.	-0.203m	0.059m		
		Dist.	1356.659m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1161	CP5143	**Az.**	122°08'37.8684"	0°00'00.4253"	1:530567	1:530567
		ΔHt.	0.488m	0.009m		
		ΔElev.	0.495m	0.058m		
		Dist.	1580.101m	0.003m		
Q 529	CP1087	**Az.**	203°11'26.3106"	0°00'00.0985"	1:2296979	1:2296979
		ΔHt.	0.276m	0.012m		
		ΔElev.	0.220m	0.000m		
		Dist.	8669.383m	0.004m		
Q 529	CP1088	**Az.**	209°27'49.2975"	0°00'00.1386"	1:1774435	1:1774435
		ΔHt.	-0.877m	0.012m		
		ΔElev.	-0.928m	0.042m		
		Dist.	7229.348m	0.004m		
Q 529	CP1091	**Az.**	311°15'30.3245"	0°00'00.2731"	1:667136	1:667136
		ΔHt.	1.064m	0.013m		
		ΔElev.	1.077m	0.042m		
		Dist.	3009.640m	0.005m		
Q 529	CP1224	**Az.**	143°38'06.4251"	0°00'00.2202"	1:1265857	1:1265857
		ΔHt.	-1.066m	0.008m		
		ΔElev.	-1.058m	0.041m		
		Dist.	3868.311m	0.003m		
CP1158	CP1160	**Az.**	299°45'02.9818"	0°00'00.3471"	1:920873	1:920873
		ΔHt.	0.620m	0.016m		
		ΔElev.	0.598m	0.059m		
		Dist.	3913.779m	0.004m		
CP1158	CP1159	**Az.**	282°23'24.9367"	0°00'00.4009"	1:689115	1:689115
		ΔHt.	0.734m	0.017m		
		ΔElev.	0.697m	0.059m		
		Dist.	3265.772m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1223	AIRPORT	**Az.**	90°33'48.9444"	0°00'00.1437"	1:1419335	1:1419335
		ΔHt.	-1.371m	0.018m		
		ΔElev.	-1.286m	0.042m		
		Dist.	7344.734m	0.005m		
CP1223	CP1159	**Az.**	30°15'30.6449"	0°00'00.1021"	1:1621786	1:1621786
		ΔHt.	-2.159m	0.017m		
		ΔElev.	-2.019m	0.059m		
		Dist.	10728.519m	0.007m		
CP1160	CP1159	**Az.**	170°27'49.5817"	0°00'00.3960"	1:447507	1:447507
		ΔHt.	0.114m	0.007m		
		ΔElev.	0.099m	0.058m		
		Dist.	1258.735m	0.003m		
CP1160	CP1224	**Az.**	256°21'06.3314"	0°00'00.0937"	1:1830815	1:1830815
		ΔHt.	0.437m	0.014m		
		ΔElev.	0.297m	0.058m		
		Dist.	9827.817m	0.005m		
CP1160	A 524	**Az.**	326°53'29.4594"	0°00'00.1060"	1:2339470	1:2339470
		ΔHt.	5.534m	0.012m		
		ΔElev.	5.592m	0.041m		
		Dist.	8247.984m	0.004m		
CP1160	CP5143	**Az.**	271°22'38.2229"	0°00'00.6185"	1:380331	1:380331
		ΔHt.	0.174m	0.007m		
		ΔElev.	0.160m	0.059m		
		Dist.	1020.359m	0.003m		
CP1160	CP5142	**Az.**	301°24'38.4107"	0°00'00.4756"	1:400314	1:400314
		ΔHt.	1.307m	0.008m		
		ΔElev.	1.301m	0.059m		
		Dist.	1360.894m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1083	CP1084	**Az.**	341°59'11.1066"	0°00'01.0886"	1:247096	1:247096
		ΔHt.	-0.107m	0.013m		
		ΔElev.	-0.107m	0.060m		
		Dist.	1259.937m	0.005m		
CP1083	CP1079	**Az.**	122°32'53.4299"	0°00'00.1426"	1:1775312	1:1775312
		ΔHt.	1.392m	0.012m		
		ΔElev.	1.438m	0.059m		
		Dist.	8025.900m	0.005m		
CP1083	CP1082	**Az.**	187°12'49.3190"	0°00'00.3495"	1:627215	1:627215
		ΔHt.	1.609m	0.010m		
		ΔElev.	1.610m	0.059m		
		Dist.	2833.625m	0.005m		
CP1083	CP1081	**Az.**	137°51'15.5587"	0°00'00.3075"	1:937358	1:937358
		ΔHt.	1.019m	0.011m		
		ΔElev.	1.034m	0.059m		
		Dist.	3700.830m	0.004m		
CP1087	CP1088	**Az.**	355°08'17.1214"	0°00'00.5611"	1:449595	1:449595
		ΔHt.	-1.153m	0.011m		
		ΔElev.	-1.148m	0.042m		
		Dist.	1680.544m	0.004m		
CP1084	CP1086	**Az.**	324°21'48.9631"	0°00'00.7456"	1:401815	1:401815
		ΔHt.	-0.062m	0.016m		
		ΔElev.	-0.065m	0.061m		
		Dist.	2405.846m	0.006m		
AIRPORT	CP1221	**Az.**	187°23'09.5071"	0°00'00.2031"	1:893424	1:893424
		ΔHt.	1.015m	0.028m		
		ΔElev.	0.983m	0.047m		
		Dist.	7074.678m	0.008m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1091	CP1091a	**Az.**	93°35'34.7415"	0°00'04.7152"	1:36882	1:36882
		ΔHt.	-0.090m	0.008m		
		ΔElev.	-0.089m	0.060m		
		Dist.	128.103m	0.003m		
CP1159	CP5141	**Az.**	285°16'16.3445"	0°00'00.2757"	1:963925	1:963925
		ΔHt.	-0.607m	0.011m		
		ΔElev.	-0.637m	0.059m		
		Dist.	3050.161m	0.003m		
CP1159	CP5138	**Az.**	255°14'37.7208"	0°00'00.5105"	1:625403	1:625403
		ΔHt.	-1.250m	0.016m		
		ΔElev.	-1.295m	0.060m		
		Dist.	2764.852m	0.004m		
CP1159	CP5143	**Az.**	315°51'24.5994"	0°00'00.3021"	1:619606	1:619606
		ΔHt.	0.060m	0.007m		
		ΔElev.	0.060m	0.059m		
		Dist.	1764.050m	0.003m		
CP1159	CP5142	**Az.**	324°55'07.4841"	0°00'00.2532"	1:670559	1:670559
		ΔHt.	1.193m	0.009m		
		ΔElev.	1.202m	0.059m		
		Dist.	2383.634m	0.004m		
Y 530	CP1075	**Az.**	8°41'04.6168"	0°00'00.1003"	1:2495415	1:2495415
		ΔHt.	1.229m	0.019m		
		ΔElev.	1.175m	0.044m		
		Dist.	13917.501m	0.006m		
Y 530	CP1076	**Az.**	359°02'03.7260"	0°00'00.0647"	1:3603133	1:3603133
		ΔHt.	1.572m	0.016m		
		ΔElev.	1.493m	0.042m		
		Dist.	15915.726m	0.004m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
Y 530	CP1073	**Az.**	31°12'40.1117"	0°00'00.1229"	1:1543100	1:1543100
		ΔHt.	1.018m	0.017m		
		ΔElev.	1.006m	0.043m		
		Dist.	10240.357m	0.007m		
Y 530	CP1070	**Az.**	88°59'44.5211"	0°00'00.2819"	1:605843	1:605843
		ΔHt.	0.735m	0.037m		
		ΔElev.	0.789m	0.053m		
		Dist.	7628.428m	0.013m		
Y 530	CP1072	**Az.**	52°52'05.5232"	0°00'00.2340"	1:655047	1:655047
		ΔHt.	0.214m	0.021m		
		ΔElev.	0.229m	0.045m		
		Dist.	7542.220m	0.012m		
Y 530	CP1074	**Az.**	19°26'51.3428"	0°00'00.1194"	1:2089756	1:2089756
		ΔHt.	1.003m	0.017m		
		ΔElev.	0.972m	0.044m		
		Dist.	11217.568m	0.005m		
Y 530	FDEM-BC1	**Az.**	137°34'21.7822"	0°00'00.0276"	1:7862880	1:7862880
		ΔHt.	-1.750m	0.021m		
		ΔElev.	-1.563m	0.042m		
		Dist.	19967.647m	0.003m		
Y 530	CP1071	**Az.**	64°46'21.6265"	0°00'00.1935"	1:840470	1:840470
		ΔHt.	0.463m	0.021m		
		ΔElev.	0.490m	0.045m		
		Dist.	7366.238m	0.009m		
CP1075	CP1076	**Az.**	312°17'59.4847"	0°00'00.3485"	1:543925	1:543925
		ΔHt.	0.343m	0.016m		
		ΔElev.	0.318m	0.061m		
		Dist.	3203.405m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1075	CP1220	**Az.**	87°14'36.4260"	0°00'00.1520"	1:1116987	1:1116987
		ΔHt.	-1.684m	0.015m		
		ΔElev.	-1.635m	0.061m		
		Dist.	6442.620m	0.006m		
CP1075	CP1074	**Az.**	152°49'32.2296"	0°00'00.3605"	1:593176	1:593176
		ΔHt.	-0.226m	0.017m		
		ΔElev.	-0.202m	0.062m		
		Dist.	3575.268m	0.006m		
CP1079	CP1076	**Az.**	164°19'59.8940"	0°00'00.1335"	1:1600334	1:1600334
		ΔHt.	0.642m	0.013m		
		ΔElev.	0.686m	0.059m		
		Dist.	7192.119m	0.004m		
CP1079	CP1081	**Az.**	290°12'49.5020"	0°00'00.1633"	1:1334342	1:1334342
		ΔHt.	-0.373m	0.008m		
		ΔElev.	-0.404m	0.059m		
		Dist.	4562.168m	0.003m		
CP1079	CP1078	**Az.**	147°02'10.5976"	0°00'00.2579"	1:944663	1:944663
		ΔHt.	-0.270m	0.012m		
		ΔElev.	-0.240m	0.042m		
		Dist.	3840.430m	0.004m		
CP1079	CP1080	**Az.**	269°06'55.4101"	0°00'00.1648"	1:1064256	1:1064256
		ΔHt.	0.235m	0.008m		
		ΔElev.	0.208m	0.059m		
		Dist.	4238.802m	0.004m		
CP1079	CP1221	**Az.**	82°56'48.4556"	0°00'00.1871"	1:1156721	1:1156721
		ΔHt.	-1.582m	0.025m		
		ΔElev.	-1.518m	0.063m		
		Dist.	8303.119m	0.007m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1076	CP1220	**Az.**	101°49'52.6465"	0°00'00.0929"	1:2385521	1:2385521
		ΔHt.	-2.027m	0.010m		
		ΔElev.	-1.953m	0.059m		
		Dist.	8995.966m	0.004m		
CP1076	CP1077	**Az.**	9°58'45.0659"	0°00'00.2663"	1:586121	1:586121
		ΔHt.	-0.781m	0.007m		
		ΔElev.	-0.787m	0.059m		
		Dist.	2116.448m	0.004m		
CP1217	CP1216	**Az.**	64°53'08.0800"	0°00'00.2882"	1:806172	1:806172
		ΔHt.	-2.138m	0.028m		
		ΔElev.	-2.088m	0.063m		
		Dist.	7891.956m	0.010m		
CP1217	CP1215	**Az.**	17°37'37.5999"	0°00'00.2852"	1:1001411	1:1001411
		ΔHt.	-0.896m	0.025m		
		ΔElev.	-0.884m	0.045m		
		Dist.	7773.250m	0.008m		
CP1217	CP1068	**Az.**	229°35'23.9103"	0°00'00.2879"	1:1009197	1:1009197
		ΔHt.	1.541m	0.020m		
		ΔElev.	1.548m	0.045m		
		Dist.	6327.640m	0.006m		
CP1217	CP1210	**Az.**	130°18'17.3848"	0°00'00.1605"	1:904405	1:904405
		ΔHt.	-0.257m	0.021m		
		ΔElev.	-0.195m	0.061m		
		Dist.	8547.932m	0.009m		
CP1217	CP1069	**Az.**	260°30'50.7092"	0°00'00.3880"	1:550069	1:550069
		ΔHt.	2.055m	0.023m		
		ΔElev.	2.036m	0.045m		
		Dist.	5677.580m	0.010m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1217	CP1071	**Az.**	283°37'37.5468"	0°00'00.2054"	1:734005	1:734005
		ΔHt.	1.995m	0.028m		
		ΔElev.	1.929m	0.063m		
		Dist.	8835.272m	0.012m		
CP1220	CP1073	**Az.**	211°20'51.9679"	0°00'00.1912"	1:1072632	1:1072632
		ΔHt.	1.473m	0.014m		
		ΔElev.	1.466m	0.060m		
		Dist.	6215.810m	0.006m		
CP1220	CP1077	**Az.**	295°00'24.5501"	0°00'00.1090"	1:2325779	1:2325779
		ΔHt.	1.246m	0.011m		
		ΔElev.	1.166m	0.059m		
		Dist.	9307.924m	0.004m		
CP1220	CP1074	**Az.**	234°01'05.5864"	0°00'00.1884"	1:1104440	1:1104440
		ΔHt.	1.458m	0.014m		
		ΔElev.	1.433m	0.060m		
		Dist.	5936.823m	0.005m		
CP1220	CP1221	**Az.**	345°40'52.8693"	0°00'00.1468"	1:1426599	1:1426599
		ΔHt.	-0.197m	0.025m		
		ΔElev.	-0.251m	0.063m		
		Dist.	10103.547m	0.007m		
CP1216	CP1210	**Az.**	184°04'18.9484"	0°00'00.1933"	1:1119211	1:1119211
		ΔHt.	1.881m	0.023m		
		ΔElev.	1.893m	0.061m		
		Dist.	8900.942m	0.008m		
CP1216	CP1212	**Az.**	69°05'33.7684"	0°00'00.2277"	1:1049224	1:1049224
		ΔHt.	1.294m	0.021m		
		ΔElev.	1.351m	0.060m		
		Dist.	7293.990m	0.007m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1216	CP3008	**Az.**	105°33'20.0733"	0°00'00.1993"	1:1029576	1:1029576
		ΔHt.	2.613m	0.022m		
		ΔElev.	2.672m	0.062m		
		Dist.	8143.804m	0.008m		
CP1215	CP1073	**Az.**	271°22'43.8886"	0°00'00.1260"	1:1469163	1:1469163
		ΔHt.	3.446m	0.021m		
		ΔElev.	3.329m	0.043m		
		Dist.	12294.459m	0.008m		
CP1215	CP1072	**Az.**	251°21'20.9905"	0°00'00.1556"	1:1015194	1:1015194
		ΔHt.	2.642m	0.024m		
		ΔElev.	2.552m	0.045m		
		Dist.	12232.054m	0.012m		
CP1215	CP1071	**Az.**	244°03'00.4507"	0°00'00.1187"	1:1308714	1:1308714
		ΔHt.	2.890m	0.022m		
		ΔElev.	2.813m	0.045m		
		Dist.	12168.280m	0.009m		
CP1215	CP1262	**Az.**	16°46'17.3326"	0°00'00.2593"	1:881827	1:881827
		ΔHt.	-0.662m	0.019m		
		ΔElev.	-0.663m	0.044m		
		Dist.	5119.746m	0.006m		
CP1215	CP1254	**Az.**	83°26'36.8793"	0°00'00.1506"	1:1190979	1:1190979
		ΔHt.	-1.072m	0.016m		
		ΔElev.	-1.014m	0.042m		
		Dist.	7197.156m	0.006m		
CP1068	CP1067	**Az.**	138°02'15.8920"	0°00'00.4419"	1:421522	1:421522
		ΔHt.	-1.041m	0.015m		
		ΔElev.	-1.024m	0.042m		
		Dist.	2401.703m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1068	CP1210	**Az.**	97°09'16.3242"	0°00'00.0878"	1:2005019	1:2005019
		ΔHt.	-1.797m	0.014m		
		ΔElev.	-1.742m	0.041m		
		Dist.	11426.294m	0.006m		
CP1068	CP1069	**Az.**	346°06'23.0459"	0°00'00.5500"	1:302630	1:302630
		ΔHt.	0.514m	0.021m		
		ΔElev.	0.488m	0.000m		
		Dist.	3261.340m	0.011m		
CP1068	FDEM-BC1	**Az.**	165°31'07.8443"	0°00'00.0963"	1:2345697	1:2345697
		ΔHt.	-1.758m	0.015m		
		ΔElev.	-1.672m	0.042m		
		Dist.	12085.762m	0.005m		
CP1068	CP5328	**Az.**	28°40'04.7546"	0°00'00.1218"	1:1759141	1:1759141
		ΔHt.	-1.764m	0.020m		
		ΔElev.	-1.773m	0.044m		
		Dist.	14989.641m	0.009m		
CP1068	CP5315	**Az.**	87°29'45.9123"	0°00'00.3764"	1:593827	1:593827
		ΔHt.	-2.345m	0.024m		
		ΔElev.	-2.320m	0.047m		
		Dist.	6695.319m	0.011m		
CP1068	CP5318	**Az.**	34°08'33.1870"	0°00'00.3302"	1:633933	1:633933
		ΔHt.	-1.746m	0.023m		
		ΔElev.	-1.768m	0.046m		
		Dist.	7056.475m	0.011m		
CP1068	CP5326	**Az.**	55°21'41.0528"	0°00'00.3043"	1:390989	1:390989
		ΔHt.	-3.007m	0.039m		
		ΔElev.	-2.998m	0.056m		
		Dist.	8880.591m	0.023m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1068	CP5314	**Az.**	271°09'45.2422"	0°00'00.1557"	1:1448587	1:1448587
		ΔHt.	0.256m	0.015m		
		ΔElev.	0.206m	0.045m		
		Dist.	7732.699m	0.005m		
CP1068	CP5322	**Az.**	297°54'03.1075"	0°00'00.1182"	1:2275569	1:2275569
		ΔHt.	0.118m	0.016m		
		ΔElev.	0.009m	0.045m		
		Dist.	11849.298m	0.005m		
CP1068	CP5320	**Az.**	309°11'59.1961"	0°00'00.3225"	1:1154617	1:1154617
		ΔHt.	0.109m	0.027m		
		ΔElev.	0.036m	0.050m		
		Dist.	7419.068m	0.006m		
CP1068	CP5321	**Az.**	289°54'23.8449"	0°00'00.1380"	1:1836270	1:1836270
		ΔHt.	-0.395m	0.015m		
		ΔElev.	-0.472m	0.045m		
		Dist.	9017.591m	0.005m		
CP1068	CP5306	**Az.**	146°58'12.1871"	0°00'00.0674"	1:2613239	1:2613239
		ΔHt.	-2.024m	0.012m		
		ΔElev.	-1.947m	0.043m		
		Dist.	10911.988m	0.004m		
CP1068	CP5313	**Az.**	141°25'18.5432"	0°00'00.1613"	1:1066088	1:1066088
		ΔHt.	-1.410m	0.008m		
		ΔElev.	-1.384m	0.043m		
		Dist.	3336.034m	0.003m		
CP1068	CP5303	**Az.**	121°37'50.1818"	0°00'00.0675"	1:2984195	1:2984195
		ΔHt.	-3.159m	0.011m		
		ΔElev.	-3.093m	0.043m		
		Dist.	11209.920m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1068	CP5304	**Az.**	127°54'39.2451"	0°00'00.0614"	1:3111293	1:3111293
		ΔHt.	-2.945m	0.010m		
		ΔElev.	-2.876m	0.043m		
		Dist.	11340.531m	0.004m		
CP1073	CP1072	**Az.**	170°29'11.4551"	0°00'00.5457"	1:436783	1:436783
		ΔHt.	-0.804m	0.021m		
		ΔElev.	-0.777m	0.063m		
		Dist.	4264.278m	0.010m		
CP1073	CP1074	**Az.**	319°12'05.9304"	0°00'00.6088"	1:345695	1:345695
		ΔHt.	-0.015m	0.018m		
		ΔElev.	-0.034m	0.061m		
		Dist.	2404.200m	0.007m		
CP1077	CP1078	**Az.**	352°18'12.1158"	0°00'00.4133"	1:433072	1:433072
		ΔHt.	-0.130m	0.008m		
		ΔElev.	-0.139m	0.042m		
		Dist.	1633.013m	0.004m		
CP1067	CP1210	**Az.**	87°52'20.1451"	0°00'00.0764"	1:2614389	1:2614389
		ΔHt.	-0.756m	0.011m		
		ΔElev.	-0.719m	0.059m		
		Dist.	9738.209m	0.004m		
CP1067	FDEM-BC1	**Az.**	171°52'42.5606"	0°00'00.0984"	1:2373058	1:2373058
		ΔHt.	-0.717m	0.014m		
		ΔElev.	-0.648m	0.060m		
		Dist.	10016.560m	0.004m		
CP1067	CP1066	**Az.**	159°30'18.0595"	0°00'00.2914"	1:870097	1:870097
		ΔHt.	1.714m	0.010m		
		ΔElev.	1.738m	0.060m		
		Dist.	2689.835m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1070	CP1069	**Az.**	90°15'24.7979"	0°00'00.9636"	1:165834	1:165834
		ΔHt.	-0.212m	0.035m		
		ΔElev.	-0.192m	0.053m		
		Dist.	2026.634m	0.012m		
CP1070	FDEM-BC1	**Az.**	158°34'55.9131"	0°00'00.1507"	1:1381316	1:1381316
		ΔHt.	-2.485m	0.036m		
		ΔElev.	-2.352m	0.068m		
		Dist.	15979.478m	0.012m		
CP1070	CP1071	**Az.**	342°15'35.7925"	0°00'00.8610"	1:254948	1:254948
		ΔHt.	-0.272m	0.038m		
		ΔElev.	-0.299m	0.069m		
		Dist.	3156.533m	0.012m		
CP1082	CP1081	**Az.**	88°38'29.5467"	0°00'00.2088"	1:822157	1:822157
		ΔHt.	-0.590m	0.007m		
		ΔElev.	-0.576m	0.059m		
		Dist.	2839.939m	0.003m		
CP1082	CP1080	**Az.**	118°38'22.8478"	0°00'00.2513"	1:958287	1:958287
		ΔHt.	0.018m	0.008m		
		ΔElev.	0.036m	0.059m		
		Dist.	3284.845m	0.003m		
CP1210	CP1240	**Az.**	93°24'09.0399"	0°00'00.0566"	1:2827750	1:2827750
		ΔHt.	0.901m	0.008m		
		ΔElev.	0.944m	0.058m		
		Dist.	10048.001m	0.004m		
CP1210	CP1063	**Az.**	205°02'22.5400"	0°00'00.0749"	1:2873801	1:2873801
		ΔHt.	-0.660m	0.009m		
		ΔElev.	-0.636m	0.059m		
		Dist.	9394.018m	0.003m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1210	CP1066	**Az.**	251°53'42.2164"	0°00'00.0753"	1:2306369	1:2306369
		ΔHt.	2.470m	0.011m		
		ΔElev.	2.456m	0.059m		
		Dist.	9249.866m	0.004m		
CP1210	CP1065	**Az.**	236°44'39.6053"	0°00'00.0836"	1:2046459	1:2046459
		ΔHt.	-0.073m	0.008m		
		ΔElev.	-0.073m	0.058m		
		Dist.	6681.114m	0.003m		
CP1210	CP1243	**Az.**	158°26'47.0685"	0°00'00.1025"	1:2609016	1:2609016
		ΔHt.	0.271m	0.007m		
		ΔElev.	0.288m	0.058m		
		Dist.	6845.194m	0.003m		
CP1210	CP1252	**Az.**	123°29'45.6538"	0°00'00.1685"	1:1122627	1:1122627
		ΔHt.	-1.019m	0.005m		
		ΔElev.	-1.005m	0.058m		
		Dist.	2963.884m	0.003m		
CP1210	CP1251	**Az.**	199°56'36.3082"	0°00'00.1172"	1:2155727	1:2155727
		ΔHt.	1.481m	0.006m		
		ΔElev.	1.492m	0.058m		
		Dist.	4748.635m	0.002m		
CP1210	CP1253	**Az.**	48°36'53.4138"	0°00'00.1090"	1:1974381	1:1974381
		ΔHt.	-0.523m	0.010m		
		ΔElev.	-0.498m	0.058m		
		Dist.	7535.911m	0.004m		
CP1210	CP1064	**Az.**	218°59'33.0129"	0°00'00.0685"	1:2981351	1:2981351
		ΔHt.	-0.647m	0.007m		
		ΔElev.	-0.632m	0.058m		
		Dist.	7847.526m	0.003m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1069	CP1071	**Az.**	315°16'04.1657"	0°00'00.4518"	1:306076	1:306076
		ΔHt.	-0.060m	0.028m		
		ΔElev.	-0.107m	0.045m		
		Dist.	4245.461m	0.014m		
CP1072	CP1071	**Az.**	155°18'24.0207"	0°00'01.5438"	1:171567	1:171567
		ΔHt.	0.249m	0.020m		
		ΔElev.	0.261m	0.064m		
		Dist.	1555.874m	0.009m		
CP1081	CP1080	**Az.**	178°29'03.5161"	0°00'00.4548"	1:539570	1:539570
		ΔHt.	0.608m	0.007m		
		ΔElev.	0.612m	0.059m		
		Dist.	1642.337m	0.003m		
CP1078	CP1221	**Az.**	55°25'04.3986"	0°00'00.1886"	1:906872	1:906872
		ΔHt.	-1.312m	0.025m		
		ΔElev.	-1.279m	0.047m		
		Dist.	7471.484m	0.008m		
FDEM-BC1	Y 535	**Az.**	110°54'30.0814"	0°00'00.3829"	1:485918	1:485918
		ΔHt.	-0.612m	0.008m		
		ΔElev.	-0.609m	0.042m		
		Dist.	1329.844m	0.003m		
FDEM-BC1	CP1065	**Az.**	22°27'54.2652"	0°00'00.1104"	1:1887188	1:1887188
		ΔHt.	-0.112m	0.011m		
		ΔElev.	-0.144m	0.059m		
		Dist.	7152.118m	0.004m		
FDEM-BC1	FDEM-BC2	**Az.**	92°09'39.6977"	0°00'00.5548"	1:283437	1:283437
		ΔHt.	-0.582m	0.013m		
		ΔElev.	-0.581m	0.060m		
		Dist.	1079.257m	0.004m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
A 524	CP1163	**Az.**	183°37'39.3924"	0°00'00.6642"	1:405934	1:405934
		ΔHt.	-4.532m	0.010m		
		ΔElev.	-4.564m	0.042m		
		Dist.	1161.940m	0.003m		
A 524	CP1092	**Az.**	241°55'39.8666"	0°00'00.1941"	1:1087663	1:1087663
		ΔHt.	-4.204m	0.016m		
		ΔElev.	-4.332m	0.043m		
		Dist.	5760.610m	0.005m		
A 524	CP1165	**Az.**	358°49'56.3450"	0°00'00.2525"	1:962394	1:962394
		ΔHt.	-3.040m	0.006m		
		ΔElev.	-2.996m	0.041m		
		Dist.	2633.664m	0.003m		
A 524	CP1164	**Az.**	274°13'57.9806"	0°00'05.1650"	1:35383	1:35383
		ΔHt.	-5.090m	0.004m		
		ΔElev.	-5.099m	0.041m		
		Dist.	68.016m	0.002m		
CP1057	CP1207	**Az.**	337°29'20.1507"	0°00'00.0919"	1:2424388	1:2424388
		ΔHt.	-0.935m	0.012m		
		ΔElev.	-0.896m	0.059m		
		Dist.	9620.950m	0.004m		
CP1057	CP1059	**Az.**	269°34'46.3241"	0°00'00.2099"	1:786622	1:786622
		ΔHt.	0.793m	0.019m		
		ΔElev.	0.761m	0.042m		
		Dist.	5612.302m	0.007m		
CP1057	CP1056	**Az.**	95°44'17.1239"	0°00'00.0884"	1:1999207	1:1999207
		ΔHt.	0.121m	0.013m		
		ΔElev.	0.241m	0.042m		
		Dist.	9872.702m	0.005m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1057	FDEM-S7	**Az.**	88°39'11.4036"	0°00'00.0995"	1:1756537	1:1756537
		ΔHt.	3.669m	0.014m		
		ΔElev.	3.746m	0.060m		
		Dist.	9202.605m	0.005m		
CP1207	CP1240	**Az.**	269°45'43.1385"	0°00'00.0750"	1:2418274	1:2418274
		ΔHt.	3.308m	0.017m		
		ΔElev.	3.245m	0.058m		
		Dist.	14013.181m	0.006m		
CP1207	CP1059	**Az.**	192°10'19.5520"	0°00'00.1551"	1:1579919	1:1579919
		ΔHt.	1.728m	0.018m		
		ΔElev.	1.657m	0.041m		
		Dist.	9134.990m	0.006m		
CP1207	CP1208	**Az.**	303°35'51.4485"	0°00'00.0832"	1:2112959	1:2112959
		ΔHt.	0.669m	0.011m		
		ΔElev.	0.657m	0.058m		
		Dist.	8588.025m	0.004m		
CP1207	CP1203	**Az.**	102°18'37.3873"	0°00'00.0832"	1:1976362	1:1976362
		ΔHt.	0.734m	0.010m		
		ΔElev.	0.773m	0.058m		
		Dist.	7970.503m	0.004m		
CP1058	CP1061	**Az.**	258°34'12.6664"	0°00'00.2286"	1:718244	1:718244
		ΔHt.	-1.124m	0.024m		
		ΔElev.	-1.127m	0.048m		
		Dist.	8341.669m	0.012m		
CP1058	S 410 X	**Az.**	325°30'24.7477"	0°00'00.5561"	1:485778	1:485778
		ΔHt.	0.529m	0.020m		
		ΔElev.	0.541m	0.000m		
		Dist.	2927.131m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1058	CP1059	**Az.**	89°41'46.9479"	0°00'00.1532"	1:1043107	1:1043107
		ΔHt.	-0.069m	0.021m		
		ΔElev.	-0.046m	0.000m		
		Dist.	9010.349m	0.009m		
CP1058	CORNER AZ	**Az.**	268°41'44.4760"	0°00'00.1346"	1:1108438	1:1108438
		ΔHt.	2.450m	0.018m		
		ΔElev.	2.463m	0.000m		
		Dist.	9844.080m	0.009m		
CP1061	CP1060	**Az.**	268°34'50.6944"	0°00'00.5271"	1:302333	1:302333
		ΔHt.	0.786m	0.027m		
		ΔElev.	0.795m	0.064m		
		Dist.	3904.790m	0.013m		
CP1061	CORNER AZ	**Az.**	310°35'46.5074"	0°00'01.0284"	1:175810	1:175810
		ΔHt.	3.574m	0.026m		
		ΔElev.	3.590m	0.048m		
		Dist.	2194.344m	0.012m		
S 410 X	CP1240	**Az.**	347°36'25.0841"	0°00'00.1332"	1:1787155	1:1787155
		ΔHt.	0.982m	0.020m		
		ΔElev.	1.001m	0.041m		
		Dist.	6651.158m	0.004m		
S 410 X	CP1059	**Az.**	102°29'29.1003"	0°00'00.1159"	1:1481612	1:1481612
		ΔHt.	-0.598m	0.024m		
		ΔElev.	-0.587m	0.000m		
		Dist.	10926.838m	0.007m		
S 410 X	CP1243	**Az.**	274°40'51.5826"	0°00'00.0823"	1:2085028	1:2085028
		ΔHt.	0.351m	0.020m		
		ΔElev.	0.344m	0.042m		
		Dist.	8978.093m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1240	CP1252	**Az.**	262°12'55.1895"	0°00'00.0848"	1:1830495	1:1830495
		ΔHt.	-1.920m	0.009m		
		ΔElev.	-1.950m	0.058m		
		Dist.	7629.758m	0.004m		
CP1240	CP1253	**Az.**	321°55'51.9397"	0°00'00.1164"	1:1779805	1:1779805
		ΔHt.	-1.425m	0.010m		
		ΔElev.	-1.442m	0.058m		
		Dist.	7090.185m	0.004m		
CP1240	CP3008	**Az.**	348°01'12.9449"	0°00'00.1825"	1:1027921	1:1027921
		ΔHt.	-0.170m	0.020m		
		ΔElev.	-0.166m	0.060m		
		Dist.	7454.855m	0.007m		
CP1060	CP1063	**Az.**	298°42'59.8511"	0°00'00.1448"	1:1296332	1:1296332
		ΔHt.	0.287m	0.012m		
		ΔElev.	0.292m	0.060m		
		Dist.	5725.463m	0.004m		
CP1060	CORNER AZ	**Az.**	55°42'39.5733"	0°00'00.5717"	1:318360	1:318360
		ΔHt.	2.788m	0.019m		
		ΔElev.	2.794m	0.043m		
		Dist.	2707.477m	0.009m		
CP1060	CP1062	**Az.**	279°48'53.6848"	0°00'00.3890"	1:420087	1:420087
		ΔHt.	-0.150m	0.013m		
		ΔElev.	-0.145m	0.060m		
		Dist.	1980.842m	0.005m		
CP1060	CP5307	**Az.**	268°45'35.4622"	0°00'00.1914"	1:1027368	1:1027368
		ΔHt.	0.047m	0.018m		
		ΔElev.	0.064m	0.062m		
		Dist.	6495.836m	0.006m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1060	CP5308	**Az.**	268°34'40.2586"	0°00'00.2173"	1:969063	1:969063
		ΔHt.	0.600m	0.015m		
		ΔElev.	0.615m	0.062m		
		Dist.	5255.873m	0.005m		
CP1060	CP5309	**Az.**	142°13'36.1455"	0°00'10.8176"	1:22899	1:22899
		ΔHt.	-0.005m	0.006m		
		ΔElev.	-0.005m	0.060m		
		Dist.	45.770m	0.002m		
CP1063	Y 535	**Az.**	234°14'21.1326"	0°00'00.1485"	1:1282815	1:1282815
		ΔHt.	0.088m	0.009m		
		ΔElev.	0.098m	0.042m		
		Dist.	3827.124m	0.003m		
CP1063	CORNER AZ	**Az.**	99°33'44.9824"	0°00'00.1777"	1:868829	1:868829
		ΔHt.	2.501m	0.017m		
		ΔElev.	2.502m	0.042m		
		Dist.	7360.962m	0.008m		
CP1063	CP1243	**Az.**	71°41'53.7901"	0°00'00.1050"	1:1607369	1:1607369
		ΔHt.	0.931m	0.010m		
		ΔElev.	0.924m	0.059m		
		Dist.	6835.814m	0.004m		
CP1063	CP1064	**Az.**	338°14'23.5495"	0°00'00.2487"	1:957150	1:957150
		ΔHt.	0.013m	0.008m		
		ΔElev.	0.004m	0.059m		
		Dist.	2596.527m	0.003m		
CP1063	CP1062	**Az.**	128°09'12.3902"	0°00'00.1796"	1:1224826	1:1224826
		ΔHt.	-0.437m	0.009m		
		ΔElev.	-0.438m	0.059m		
		Dist.	3904.526m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
Y 535	FDEM-BC2	**Az.**	339°19'29.0778"	0°00'01.5082"	1:161130	1:161130
		ΔHt.	0.030m	0.011m		
		ΔElev.	0.028m	0.043m		
		Dist.	463.775m	0.003m		
Y 535	CP1064	**Az.**	24°44'17.0957"	0°00'00.1312"	1:1618422	1:1618422
		ΔHt.	-0.074m	0.010m		
		ΔElev.	-0.094m	0.042m		
		Dist.	5118.313m	0.003m		
Y 535	CP1062	**Az.**	91°36'50.6948"	0°00'00.1218"	1:1532465	1:1532465
		ΔHt.	-0.525m	0.011m		
		ΔElev.	-0.536m	0.042m		
		Dist.	6178.426m	0.004m		
CP1066	CP1065	**Az.**	103°47'45.2234"	0°00'00.2269"	1:957995	1:957995
		ΔHt.	-2.543m	0.010m		
		ΔElev.	-2.529m	0.059m		
		Dist.	3300.694m	0.003m		
CP1065	CP1064	**Az.**	165°03'03.5251"	0°00'00.2440"	1:984220	1:984220
		ΔHt.	-0.575m	0.007m		
		ΔElev.	-0.560m	0.059m		
		Dist.	2520.582m	0.003m		
CORNER AZ	CP1243	**Az.**	347°10'53.5271"	0°00'00.5371"	1:508994	1:508994
		ΔHt.	-1.570m	0.018m		
		ΔElev.	-1.578m	0.042m		
		Dist.	3455.978m	0.007m		
CP1243	CP1252	**Az.**	359°29'22.3567"	0°00'00.1600"	1:1762573	1:1762573
		ΔHt.	-1.289m	0.007m		
		ΔElev.	-1.293m	0.059m		
		Dist.	4731.031m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1243	CP1251	**Az.**	294°43'23.3675"	0°00'00.1279"	1:1384865	1:1384865
		ΔHt.	1.211m	0.007m		
		ΔElev.	1.205m	0.059m		
		Dist.	4551.249m	0.003m		
CP1243	CP1064	**Az.**	272°03'52.9786"	0°00'00.0801"	1:1965109	1:1965109
		ΔHt.	-0.918m	0.008m		
		ΔElev.	-0.920m	0.059m		
		Dist.	7457.326m	0.004m		
CP1201	CP1250	**Az.**	161°13'45.5469"	0°00'00.2427"	1:1089870	1:1089870
		ΔHt.	-0.140m	0.013m		
		ΔElev.	-0.151m	0.058m		
		Dist.	5067.466m	0.005m		
CP1201	Y 555	**Az.**	56°23'44.0632"	0°00'00.1635"	1:1238059	1:1238059
		ΔHt.	-1.122m	0.015m		
		ΔElev.	-0.999m	0.041m		
		Dist.	7466.123m	0.006m		
CP1250	CP1199	**Az.**	57°17'40.2236"	0°00'00.1095"	1:2160957	1:2160957
		ΔHt.	0.240m	0.013m		
		ΔElev.	0.357m	0.058m		
		Dist.	8913.444m	0.004m		
CP1250	V 486	**Az.**	245°56'10.5811"	0°00'00.0913"	1:2006675	1:2006675
		ΔHt.	1.978m	0.015m		
		ΔElev.	1.913m	0.040m		
		Dist.	7296.234m	0.004m		
CP1250	CP1052	**Az.**	91°38'14.3628"	0°00'00.0589"	1:3604290	1:3604290
		ΔHt.	0.887m	0.011m		
		ΔElev.	1.063m	0.058m		
		Dist.	14495.968m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1250	CP1237	**Az.**	271°10'50.5647"	0°00'00.0726"	1:2392725	1:2392725
		ΔHt.	0.105m	0.008m		
		ΔElev.	0.037m	0.057m		
		Dist.	8999.292m	0.004m		
CP1250	CP1202	**Az.**	127°50'24.6076"	0°00'00.1068"	1:1750092	1:1750092
		ΔHt.	-0.370m	0.012m		
		ΔElev.	-0.338m	0.057m		
		Dist.	7032.831m	0.004m		
Y 555	CP1199	**Az.**	144°43'49.4366"	0°00'00.2029"	1:881464	1:881464
		ΔHt.	1.222m	0.014m		
		ΔElev.	1.205m	0.041m		
		Dist.	5039.481m	0.006m		
Y 555	CP1236	**Az.**	41°13'13.3201"	0°00'00.2277"	1:1013137	1:1013137
		ΔHt.	0.207m	0.012m		
		ΔElev.	0.263m	0.042m		
		Dist.	4140.659m	0.004m		
Star	CP1135	**Az.**	357°31'11.2738"	0°00'00.2507"	1:721658	1:721658
		ΔHt.	-4.863m	0.016m		
		ΔElev.	-4.741m	0.043m		
		Dist.	3295.289m	0.005m		
Star	CP1136	**Az.**	181°57'04.1226"	0°00'00.4403"	1:346833	1:346833
		ΔHt.	-5.123m	0.012m		
		ΔElev.	-5.197m	0.043m		
		Dist.	1587.544m	0.005m		
Star	CP1023	**Az.**	75°23'31.1780"	0°00'00.1960"	1:1419831	1:1419831
		ΔHt.	-3.513m	0.012m		
		ΔElev.	-3.368m	0.042m		
		Dist.	4844.163m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1205	CP1208	**Az.**	260°21'54.6348"	0°00'00.0706"	1:2542728	1:2542728
		ΔHt.	0.059m	0.010m		
		ΔElev.	-0.025m	0.041m		
		Dist.	9456.050m	0.004m		
CP1205	CP1203	**Az.**	145°03'02.4970"	0°00'00.0749"	1:2437352	1:2437352
		ΔHt.	0.123m	0.010m		
		ΔElev.	0.092m	0.041m		
		Dist.	9805.028m	0.004m		
CP1205	CP1202	**Az.**	84°44'10.6316"	0°00'00.0813"	1:2319679	1:2319679
		ΔHt.	-0.495m	0.012m		
		ΔElev.	-0.413m	0.041m		
		Dist.	10768.939m	0.005m		
CP1205	CP3005	**Az.**	145°04'09.4042"	0°00'00.1801"	1:556514	1:556514
		ΔHt.	0.242m	0.015m		
		ΔElev.	0.216m	0.043m		
		Dist.	5831.043m	0.010m		
CP1208	CP1212	**Az.**	307°37'50.7718"	0°00'00.0957"	1:2253156	1:2253156
		ΔHt.	1.150m	0.014m		
		ΔElev.	1.101m	0.058m		
		Dist.	11902.332m	0.005m		
CP1208	CP1237	**Az.**	37°49'30.3068"	0°00'00.1155"	1:1801289	1:1801289
		ΔHt.	-0.079m	0.014m		
		ΔElev.	-0.014m	0.058m		
		Dist.	8948.760m	0.005m		
CP1208	CP1256	**Az.**	296°40'57.1372"	0°00'00.2458"	1:871028	1:871028
		ΔHt.	-0.287m	0.023m		
		ΔElev.	-0.309m	0.060m		
		Dist.	5464.643m	0.006m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1203	FDEM-S7	**Az.**	143°50'31.4179"	0°00'00.1175"	1:1680235	1:1680235
		ΔHt.	3.871m	0.014m		
		ΔElev.	3.868m	0.059m		
		Dist.	8634.701m	0.005m		
CP1203	CP3005	**Az.**	325°02'54.5428"	0°00'00.2600"	1:382856	1:382856
		ΔHt.	0.119m	0.015m		
		ΔElev.	0.125m	0.059m		
		Dist.	3973.985m	0.010m		
CP1203	CP5316	**Az.**	325°20'02.3180"	0°00'00.0817"	1:3356746	1:3356746
		ΔHt.	0.104m	0.014m		
		ΔElev.	0.118m	0.060m		
		Dist.	13320.667m	0.004m		
CP1203	CP5336	**Az.**	267°58'35.3326"	0°00'00.1145"	1:1510821	1:1510821
		ΔHt.	-0.143m	0.014m		
		ΔElev.	-0.195m	0.060m		
		Dist.	7827.415m	0.005m		
CP1203	CP5302	**Az.**	76°00'48.2065"	0°00'00.1424"	1:1033265	1:1033265
		ΔHt.	-1.113m	0.022m		
		ΔElev.	-0.981m	0.063m		
		Dist.	10763.026m	0.010m		
CP1203	CP5333	**Az.**	144°28'55.1175"	0°00'00.2442"	1:1174715	1:1174715
		ΔHt.	0.306m	0.014m		
		ΔElev.	0.301m	0.060m		
		Dist.	4736.834m	0.004m		
CP1053	CP1055	**Az.**	213°32'44.5128"	0°00'00.1772"	1:1491286	1:1491286
		ΔHt.	-1.617m	0.016m		
		ΔElev.	-1.673m	0.042m		
		Dist.	6609.195m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1053	CP1052	**Az.**	359°54'01.7819"	0°00'00.1207"	1:1545173	1:1545173
		ΔHt.	-2.841m	0.008m		
		ΔElev.	-2.771m	0.041m		
		Dist.	4812.575m	0.003m		
CP1053	CP1202	**Az.**	275°53'08.6375"	0°00'00.0999"	1:1788999	1:1788999
		ΔHt.	-4.098m	0.014m		
		ΔElev.	-4.171m	0.041m		
		Dist.	8996.241m	0.005m		
CP1053	CP3003	**Az.**	325°06'54.8148"	0°00'00.2508"	1:782317	1:782317
		ΔHt.	-3.227m	0.038m		
		ΔElev.	-3.211m	0.055m		
		Dist.	9242.532m	0.012m		
CP1055	FLGPS 69	**Az.**	203°34'20.3093"	0°00'00.3887"	1:771126	1:771126
		ΔHt.	-0.280m	0.011m		
		ΔElev.	-0.319m	0.042m		
		Dist.	2203.787m	0.003m		
CP1055	CP1202	**Az.**	320°30'30.6111"	0°00'00.0972"	1:1868335	1:1868335
		ΔHt.	-2.481m	0.013m		
		ΔElev.	-2.499m	0.059m		
		Dist.	8331.284m	0.004m		
FLGPS 69	CP1054	**Az.**	216°08'02.7388"	0°00'00.2131"	1:1199739	1:1199739
		ΔHt.	0.377m	0.010m		
		ΔElev.	0.331m	0.000m		
		Dist.	3481.797m	0.003m		
FLGPS 69	CP1202	**Az.**	332°23'47.8064"	0°00'00.0698"	1:3112504	1:3112504
		ΔHt.	-2.201m	0.011m		
		ΔElev.	-2.179m	0.041m		
		Dist.	9534.223m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1199	CP1052	**Az.**	126°50'25.6950"	0°00'00.1040"	1:1833462	1:1833462
		ΔHt.	0.647m	0.013m		
		ΔElev.	0.706m	0.058m		
		Dist.	8729.991m	0.005m		
CP1199	CP1051	**Az.**	64°20'04.2565"	0°00'00.1620"	1:1394713	1:1394713
		ΔHt.	0.185m	0.019m		
		ΔElev.	0.317m	0.041m		
		Dist.	7815.618m	0.006m		
CP1199	CP3004	**Az.**	324°56'37.0008"	0°00'00.1834"	1:898051	1:898051
		ΔHt.	0.690m	0.018m		
		ΔElev.	0.688m	0.059m		
		Dist.	6817.119m	0.008m		
CP1199	CP3003	**Az.**	145°19'29.3964"	0°00'00.7711"	1:256143	1:256143
		ΔHt.	0.261m	0.037m		
		ΔElev.	0.265m	0.069m		
		Dist.	3001.222m	0.012m		
CP1054	CP1056	**Az.**	196°35'47.6275"	0°00'00.1624"	1:1564939	1:1564939
		ΔHt.	-1.636m	0.012m		
		ΔElev.	-1.642m	0.000m		
		Dist.	6195.466m	0.004m		
CP1054	FDEM-S7	**Az.**	206°48'23.7990"	0°00'00.1771"	1:1243398	1:1243398
		ΔHt.	1.911m	0.011m		
		ΔElev.	1.862m	0.042m		
		Dist.	5303.345m	0.004m		
CP1054	CP1202	**Az.**	348°07'56.8478"	0°00'00.0768"	1:3253447	1:3253447
		ΔHt.	-2.578m	0.012m		
		ΔElev.	-2.510m	0.041m		
		Dist.	11506.604m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1056	FDEM-S7	**Az.**	332°39'58.9934"	0°00'00.5543"	1:379862	1:379862
		ΔHt.	3.548m	0.010m		
		ΔElev.	3.504m	0.042m		
		Dist.	1355.169m	0.004m		
CP1052	CP1051	**Az.**	0°24'56.7241"	0°00'00.1344"	1:1571097	1:1571097
		ΔHt.	-0.462m	0.018m		
		ΔElev.	-0.389m	0.041m		
		Dist.	8619.670m	0.005m		
CP1212	CP1237	**Az.**	90°43'16.0356"	0°00'00.0590"	1:3174951	1:3174951
		ΔHt.	-1.229m	0.011m		
		ΔElev.	-1.116m	0.057m		
		Dist.	14915.367m	0.005m		
CP1212	CP3008	**Az.**	167°52'01.5127"	0°00'00.2300"	1:754516	1:754516
		ΔHt.	1.319m	0.017m		
		ΔElev.	1.321m	0.059m		
		Dist.	4896.787m	0.006m		
CP1237	CP1257	**Az.**	272°24'48.0675"	0°00'00.1282"	1:1878072	1:1878072
		ΔHt.	-0.674m	0.014m		
		ΔElev.	-0.708m	0.058m		
		Dist.	4819.563m	0.003m		
CP1237	CP3006	**Az.**	333°57'30.3722"	0°00'00.1553"	1:1729499	1:1729499
		ΔHt.	0.763m	0.014m		
		ΔElev.	0.765m	0.058m		
		Dist.	6495.996m	0.004m		
CP1202	CP3003	**Az.**	28°46'19.7913"	0°00'00.2692"	1:585560	1:585560
		ΔHt.	0.871m	0.038m		
		ΔElev.	0.960m	0.068m		
		Dist.	7600.016m	0.013m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1202	CP3005	**Az.**	232°03'11.8025"	0°00'00.2298"	1:1779162	1:1779162
		ΔHt.	0.737m	0.015m		
		ΔElev.	0.630m	0.059m		
		Dist.	9370.704m	0.005m		
CP1236	CP1051	**Az.**	118°00'57.9048"	0°00'00.1645"	1:1174581	1:1174581
		ΔHt.	1.200m	0.021m		
		ΔElev.	1.259m	0.042m		
		Dist.	8183.274m	0.007m		
CP1236	CP1196	**Az.**	18°51'43.8630"	0°00'00.1936"	1:1003434	1:1003434
		ΔHt.	0.222m	0.016m		
		ΔElev.	0.357m	0.060m		
		Dist.	6293.618m	0.006m		
CP1236	CP3004	**Az.**	246°11'15.8091"	0°00'00.3527"	1:740661	1:740661
		ΔHt.	1.705m	0.016m		
		ΔElev.	1.630m	0.060m		
		Dist.	4083.467m	0.006m		
CP1051	FDEM-PS5	**Az.**	37°24'59.5119"	0°00'00.0615"	1:3533305	1:3533305
		ΔHt.	2.456m	0.011m		
		ΔElev.	2.780m	0.042m		
		Dist.	12656.615m	0.004m		
CP1051	CP1050	**Az.**	40°58'42.1355"	0°00'00.0605"	1:3629256	1:3629256
		ΔHt.	2.033m	0.010m		
		ΔElev.	2.355m	0.042m		
		Dist.	12561.601m	0.003m		
CP1051	D 537	**Az.**	73°33'46.7183"	0°00'00.0655"	1:3107125	1:3107125
		ΔHt.	2.544m	0.013m		
		ΔElev.	2.828m	0.000m		
		Dist.	13055.963m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
FDEM-PS5	CP1050	**Az.**	136°08'28.4375"	0°00'00.5114"	1:383169	1:383169
		ΔHt.	-0.423m	0.005m		
		ΔElev.	-0.425m	0.059m		
		Dist.	789.462m	0.002m		
CP1050	D 537	**Az.**	143°31'48.7291"	0°00'00.0989"	1:2018115	1:2018115
		ΔHt.	0.511m	0.011m		
		ΔElev.	0.473m	0.042m		
		Dist.	7202.338m	0.004m		
CP1050	CP1049	**Az.**	93°34'22.9159"	0°00'00.2247"	1:859993	1:859993
		ΔHt.	0.408m	0.012m		
		ΔElev.	0.463m	0.059m		
		Dist.	3174.380m	0.004m		
D 537	CP1048	**Az.**	23°09'48.4080"	0°00'00.1084"	1:2013006	1:2013006
		ΔHt.	-2.189m	0.013m		
		ΔElev.	-2.046m	0.041m		
		Dist.	5404.504m	0.003m		
D 537	CP1049	**Az.**	348°46'05.1176"	0°00'00.1020"	1:2073014	1:2073014
		ΔHt.	-0.103m	0.013m		
		ΔElev.	-0.011m	0.041m		
		Dist.	5703.694m	0.003m		
FISH	CP1097	**Az.**	28°10'12.1159"	0°00'00.4360"	1:445492	1:445492
		ΔHt.	1.241m	0.009m		
		ΔElev.	1.269m	0.042m		
		Dist.	1449.654m	0.003m		
FISH	CP1098	**Az.**	73°48'22.7293"	0°00'00.1733"	1:1473683	1:1473683
		ΔHt.	0.290m	0.009m		
		ΔElev.	0.349m	0.042m		
		Dist.	3896.655m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
FISH	CP1096	**Az.**	350°44'25.1455"	0°00'00.4416"	1:363469	1:363469
		ΔHt.	1.965m	0.009m		
		ΔElev.	1.985m	0.042m		
		Dist.	1302.894m	0.004m		
FISH	CP1095	**Az.**	193°51'32.1271"	0°00'00.8492"	1:325012	1:325012
		ΔHt.	1.715m	0.014m		
		ΔElev.	1.708m	0.043m		
		Dist.	1453.666m	0.004m		
CP1097	CP1098	**Az.**	93°34'53.9910"	0°00'00.2320"	1:1147254	1:1147254
		ΔHt.	-0.951m	0.009m		
		ΔElev.	-0.920m	0.060m		
		Dist.	3063.659m	0.003m		
CP1097	CP1099	**Az.**	53°13'13.5840"	0°00'00.1872"	1:1299677	1:1299677
		ΔHt.	-1.463m	0.009m		
		ΔElev.	-1.399m	0.060m		
		Dist.	3768.930m	0.003m		
CP1097	CP1096	**Az.**	270°30'50.6585"	0°00'00.7995"	1:336326	1:336326
		ΔHt.	0.724m	0.008m		
		ΔElev.	0.716m	0.060m		
		Dist.	894.050m	0.003m		
CP1163	CP1092	**Az.**	252°47'36.9932"	0°00'00.2064"	1:872379	1:872379
		ΔHt.	0.328m	0.017m		
		ΔElev.	0.231m	0.060m		
		Dist.	5244.072m	0.006m		
CP1163	CP1162	**Az.**	180°07'38.6303"	0°00'00.4492"	1:618972	1:618972
		ΔHt.	-0.301m	0.014m		
		ΔElev.	-0.339m	0.060m		
		Dist.	2204.629m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1233	CP1182	**Az.**	113°19'06.7858"	0°00'00.2126"	1:818151	1:818151
		ΔHt.	-2.093m	0.023m		
		ΔElev.	-1.971m	0.064m		
		Dist.	6918.370m	0.008m		
CP1233	CP1232	**Az.**	219°51'32.9945"	0°00'00.3456"	1:765933	1:765933
		ΔHt.	-1.345m	0.025m		
		ΔElev.	-1.596m	0.065m		
		Dist.	5552.125m	0.007m		
CP1233	CP1187	**Az.**	51°27'23.2459"	0°00'00.3056"	1:779181	1:779181
		ΔHt.	-3.041m	0.023m		
		ΔElev.	-2.815m	0.064m		
		Dist.	6146.621m	0.008m		
CP1233	CP1186	**Az.**	317°32'17.2523"	0°00'00.3048"	1:490150	1:490150
		ΔHt.	-0.577m	0.020m		
		ΔElev.	-0.601m	0.065m		
		Dist.	4131.349m	0.008m		
CP1233	CP1117	**Az.**	4°48'40.9330"	0°00'00.1460"	1:1187287	1:1187287
		ΔHt.	1.146m	0.018m		
		ΔElev.	1.313m	0.064m		
		Dist.	8361.661m	0.007m		
CP1233	CP1113	**Az.**	267°05'14.9882"	0°00'00.1739"	1:1207896	1:1207896
		ΔHt.	0.273m	0.021m		
		ΔElev.	-0.045m	0.064m		
		Dist.	8464.730m	0.007m		
CP1182	CP1181	**Az.**	209°02'55.4499"	0°00'00.5665"	1:514299	1:514299
		ΔHt.	-0.277m	0.014m		
		ΔElev.	-0.363m	0.065m		
		Dist.	2140.698m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1182	CP1180	**Az.**	238°05'34.4023"	0°00'00.2393"	1:1034382	1:1034382
		ΔHt.	0.658m	0.013m		
		ΔElev.	0.472m	0.065m		
		Dist.	4477.313m	0.004m		
CP1182	CP1183	**Az.**	54°51'39.2342"	0°00'01.0183"	1:245398	1:245398
		ΔHt.	1.020m	0.014m		
		ΔElev.	1.068m	0.065m		
		Dist.	1291.575m	0.005m		
CP1182	CP5157	**Az.**	238°04'07.1089"	0°00'00.6310"	1:406625	1:406625
		ΔHt.	0.148m	0.010m		
		ΔElev.	0.087m	0.065m		
		Dist.	1559.700m	0.004m		
CP1182	CP5158	**Az.**	199°57'55.8637"	0°00'01.0198"	1:285047	1:285047
		ΔHt.	-0.324m	0.010m		
		ΔElev.	-0.362m	0.065m		
		Dist.	1025.993m	0.004m		
CP1182	CP5159	**Az.**	61°47'30.4781"	0°00'04.9723"	1:52126	1:52126
		ΔHt.	-0.712m	0.010m		
		ΔElev.	-0.705m	0.065m		
		Dist.	192.372m	0.004m		
K 518	CP1102	**Az.**	112°56'09.6553"	0°00'00.1600"	1:1078125	1:1078125
		ΔHt.	-26.694m	0.025m		
		ΔElev.	-26.576m	0.043m		
		Dist.	8407.855m	0.008m		
K 518	CP1101	**Az.**	138°33'53.7861"	0°00'00.1332"	1:947312	1:947312
		ΔHt.	-25.955m	0.025m		
		ΔElev.	-25.939m	0.044m		
		Dist.	8690.088m	0.009m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
K 518	CP1096	**Az.**	173°02'49.9033"	0°00'00.0394"	1:4078993	1:4078993
		ΔHt.	-24.628m	0.025m		
		ΔElev.	-24.780m	0.042m		
		Dist.	14617.505m	0.004m		
CP1102	CP1101	**Az.**	211°38'06.9512"	0°00'00.5345"	1:557349	1:557349
		ΔHt.	0.739m	0.016m		
		ΔElev.	0.637m	0.062m		
		Dist.	3802.204m	0.007m		
CP1102	CP1103	**Az.**	56°43'55.6942"	0°00'01.3421"	1:292469	1:292469
		ΔHt.	-1.049m	0.013m		
		ΔElev.	-1.011m	0.061m		
		Dist.	1252.812m	0.004m		
FLGPS 57	CP1171	**Az.**	75°21'31.8746"	0°00'00.1652"	1:1156226	1:1156226
		ΔHt.	0.369m	0.005m		
		ΔElev.	0.462m	0.042m		
		Dist.	2677.249m	0.002m		
FLGPS 57	CP1229	**Az.**	347°32'38.8763"	0°00'00.0901"	1:2639256	1:2639256
		ΔHt.	2.351m	0.007m		
		ΔElev.	2.502m	0.042m		
		Dist.	6280.119m	0.002m		
FLGPS 57	CP1170	**Az.**	52°02'34.1665"	0°00'00.3765"	1:464382	1:464382
		ΔHt.	0.285m	0.005m		
		ΔElev.	0.332m	0.042m		
		Dist.	1105.723m	0.002m		
FLGPS 57	CP1169	**Az.**	233°58'21.4572"	0°00'01.3817"	1:156012	1:156012
		ΔHt.	0.411m	0.007m		
		ΔElev.	0.401m	0.041m		
		Dist.	388.971m	0.002m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
FLGPS 57	CP5145	**Az.**	231°13'35.2827"	0°00'00.7263"	1:355006	1:355006
		ΔHt.	0.223m	0.007m		
		ΔElev.	0.197m	0.042m		
		Dist.	875.236m	0.002m		
FLGPS 57	CP5148	**Az.**	66°20'01.7841"	0°00'00.4416"	1:612192	1:612192
		ΔHt.	-0.093m	0.008m		
		ΔElev.	-0.031m	0.042m		
		Dist.	1607.458m	0.003m		
FLGPS 57	CP5147	**Az.**	51°33'43.9186"	0°00'00.9160"	1:306433	1:306433
		ΔHt.	0.414m	0.008m		
		ΔElev.	0.451m	0.042m		
		Dist.	847.337m	0.003m		
CP1171	CP1172	**Az.**	39°16'32.3085"	0°00'00.2039"	1:836448	1:836448
		ΔHt.	-0.029m	0.005m		
		ΔElev.	0.061m	0.059m		
		Dist.	2119.803m	0.003m		
CP1171	CP1229	**Az.**	324°08'30.1048"	0°00'00.0948"	1:2508202	1:2508202
		ΔHt.	1.982m	0.007m		
		ΔElev.	2.040m	0.059m		
		Dist.	6732.408m	0.003m		
CP1171	CP1170	**Az.**	270°07'29.1342"	0°00'00.2678"	1:781009	1:781009
		ΔHt.	-0.083m	0.005m		
		ΔElev.	-0.129m	0.059m		
		Dist.	1718.486m	0.002m		
CP1171	CP5148	**Az.**	268°23'58.7130"	0°00'00.6812"	1:357998	1:357998
		ΔHt.	-0.461m	0.008m		
		ΔElev.	-0.492m	0.059m		
		Dist.	1118.486m	0.003m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1171	CP5149	**Az.**	250°40'07.8548"	0°00'02.4329"	1:96553	1:96553
		ΔHt.	0.465m	0.016m		
		ΔElev.	0.442m	0.061m		
		Dist.	646.796m	0.007m		
CP1171	CP5152	**Az.**	36°28'53.8334"	0°00'00.3079"	1:625902	1:625902
		ΔHt.	-0.101m	0.008m		
		ΔElev.	-0.022m	0.059m		
		Dist.	1872.209m	0.003m		
CP1171	CP5150	**Az.**	37°04'28.7180"	0°00'00.9731"	1:188046	1:188046
		ΔHt.	-0.048m	0.014m		
		ΔElev.	-0.012m	0.060m		
		Dist.	870.619m	0.005m		
CP1171	CP5151	**Az.**	35°48'59.0908"	0°00'00.5936"	1:303174	1:303174
		ΔHt.	0.069m	0.014m		
		ΔElev.	0.128m	0.060m		
		Dist.	1412.417m	0.005m		
CP1173	CP1174	**Az.**	71°06'04.3733"	0°00'00.4796"	1:605238	1:605238
		ΔHt.	-0.626m	0.010m		
		ΔElev.	-0.532m	0.061m		
		Dist.	2196.099m	0.004m		
CP1173	CP1172	**Az.**	249°11'17.8404"	0°00'00.4642"	1:557509	1:557509
		ΔHt.	-0.060m	0.010m		
		ΔElev.	-0.141m	0.060m		
		Dist.	1981.717m	0.004m		
CP1173	CP1230	**Az.**	346°28'58.8182"	0°00'00.1327"	1:1438403	1:1438403
		ΔHt.	1.590m	0.014m		
		ΔElev.	1.790m	0.060m		
		Dist.	7588.510m	0.005m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1173	CP5154	**Az.**	48°29'24.1921"	0°00'14.5065"	1:23939	1:23939
		ΔHt.	-0.035m	0.006m		
		ΔElev.	-0.033m	0.061m		
		Dist.	55.469m	0.002m		
CP1173	CP5155	**Az.**	72°37'47.7389"	0°00'01.0808"	1:335445	1:335445
		ΔHt.	-0.066m	0.009m		
		ΔElev.	-0.019m	0.061m		
		Dist.	1145.904m	0.003m		
CP1174	CP1175	**Az.**	49°54'21.9877"	0°00'01.7005"	1:209388	1:209388
		ΔHt.	0.630m	0.067m		
		ΔElev.	0.774m	0.090m		
		Dist.	2661.836m	0.013m		
CP1174	CP1230	**Az.**	329°59'43.0296"	0°00'00.1503"	1:1193060	1:1193060
		ΔHt.	2.216m	0.016m		
		ΔElev.	2.322m	0.061m		
		Dist.	7699.495m	0.006m		
CP1174	CP5154	**Az.**	251°40'49.3974"	0°00'00.5322"	1:606744	1:606744
		ΔHt.	0.591m	0.009m		
		ΔElev.	0.499m	0.061m		
		Dist.	2145.000m	0.004m		
CP1174	CP5155	**Az.**	249°26'38.4193"	0°00'01.2679"	1:280007	1:280007
		ΔHt.	0.560m	0.010m		
		ΔElev.	0.513m	0.062m		
		Dist.	1051.047m	0.004m		
CP1178	CP1177	**Az.**	212°01'54.5123"	0°00'00.5099"	1:397070	1:397070
		ΔHt.	3.250m	0.022m		
		ΔElev.	3.094m	0.067m		
		Dist.	3125.753m	0.008m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1178	K 523	**Az.**	65°14'15.9430"	0°00'00.3535"	1:633609	1:633609
		ΔHt.	3.821m	0.025m		
		ΔElev.	4.055m	0.047m		
		Dist.	4397.425m	0.007m		
CP1178	CP1232	**Az.**	338°47'11.5203"	0°00'00.2917"	1:616797	1:616797
		ΔHt.	0.175m	0.020m		
		ΔElev.	0.263m	0.066m		
		Dist.	4772.033m	0.008m		
CP1178	CP1179	**Az.**	42°37'33.5917"	0°00'00.5947"	1:441091	1:441091
		ΔHt.	0.182m	0.022m		
		ΔElev.	0.319m	0.067m		
		Dist.	2735.768m	0.006m		
CP1177	CP1176	**Az.**	208°46'35.2831"	0°00'00.4670"	1:487643	1:487643
		ΔHt.	-3.650m	0.020m		
		ΔElev.	-3.788m	0.068m		
		Dist.	3065.237m	0.006m		
CP1177	CP1231	**Az.**	315°53'11.4966"	0°00'00.3056"	1:609363	1:609363
		ΔHt.	0.343m	0.018m		
		ΔElev.	0.346m	0.067m		
		Dist.	3938.097m	0.006m		
CP1181	K 523	**Az.**	234°24'36.3145"	0°00'00.2897"	1:750336	1:750336
		ΔHt.	4.671m	0.019m		
		ΔElev.	4.530m	0.046m		
		Dist.	3879.334m	0.005m		
CP1181	CP1180	**Az.**	259°49'53.8262"	0°00'00.2162"	1:811382	1:811382
		ΔHt.	0.935m	0.010m		
		ΔElev.	0.835m	0.065m		
		Dist.	2805.418m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1181	CP5156	**Az.**	247°16'54.7426"	0°00'00.7610"	1:284351	1:284351
		ΔHt.	-0.042m	0.010m		
		ΔElev.	-0.077m	0.065m		
		Dist.	902.575m	0.003m		
CP1181	CP5157	**Az.**	344°47'53.1419"	0°00'00.6300"	1:347437	1:347437
		ΔHt.	0.426m	0.010m		
		ΔElev.	0.450m	0.065m		
		Dist.	1084.405m	0.003m		
CP1225	CP1227	**Az.**	41°18'09.1754"	0°00'00.1682"	1:1092886	1:1092886
		ΔHt.	-3.149m	0.013m		
		ΔElev.	-2.983m	0.059m		
		Dist.	5570.335m	0.005m		
CP1225	CP1167	**Az.**	79°57'17.6214"	0°00'00.1531"	1:1182474	1:1182474
		ΔHt.	-3.468m	0.013m		
		ΔElev.	-3.320m	0.059m		
		Dist.	6449.333m	0.005m		
CP1225	CP1226	**Az.**	296°49'55.6680"	0°00'00.1605"	1:1226571	1:1226571
		ΔHt.	-0.685m	0.015m		
		ΔElev.	-0.732m	0.059m		
		Dist.	7371.441m	0.006m		
CP1225	CP1092	**Az.**	170°34'21.9879"	0°00'00.1817"	1:1376999	1:1376999
		ΔHt.	-3.621m	0.018m		
		ΔElev.	-3.733m	0.060m		
		Dist.	7972.478m	0.006m		
CP1225	CP1166	**Az.**	103°08'20.5414"	0°00'00.1871"	1:1195127	1:1195127
		ΔHt.	-3.249m	0.012m		
		ΔElev.	-3.165m	0.059m		
		Dist.	6506.818m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1225	CP1093	**Az.**	244°06'10.3199"	0°00'00.2607"	1:866916	1:866916
		ΔHt.	-2.019m	0.017m		
		ΔElev.	-2.130m	0.060m		
		Dist.	5430.645m	0.006m		
CP1225	CP1165	**Az.**	111°41'12.8519"	0°00'00.1506"	1:1460376	1:1460376
		ΔHt.	-2.458m	0.012m		
		ΔElev.	-2.397m	0.059m		
		Dist.	6814.736m	0.005m		
CP1225	CP1164	**Az.**	129°09'28.7739"	0°00'00.1214"	1:1917676	1:1917676
		ΔHt.	-4.507m	0.012m		
		ΔElev.	-4.500m	0.059m		
		Dist.	8149.963m	0.004m		
CP1227	CP1167	**Az.**	138°52'00.8867"	0°00'00.2186"	1:1214067	1:1214067
		ΔHt.	-0.319m	0.008m		
		ΔElev.	-0.338m	0.059m		
		Dist.	4063.415m	0.003m		
CP1227	CP1168	**Az.**	121°45'15.1758"	0°00'00.1497"	1:1235204	1:1235204
		ΔHt.	0.265m	0.006m		
		ΔElev.	0.284m	0.059m		
		Dist.	3345.045m	0.003m		
CP1227	CP1244	**Az.**	310°38'25.1974"	0°00'00.1520"	1:1155304	1:1155304
		ΔHt.	1.018m	0.011m		
		ΔElev.	1.014m	0.059m		
		Dist.	5588.408m	0.005m		
CP1227	CP1169	**Az.**	97°10'20.2046"	0°00'00.1379"	1:1167348	1:1167348
		ΔHt.	-1.868m	0.007m		
		ΔElev.	-1.798m	0.059m		
		Dist.	3497.805m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1172	CP1229	**Az.**	305°49'46.6634"	0°00'00.1104"	1:2144804	1:2144804
		ΔHt.	2.011m	0.008m		
		ΔElev.	1.979m	0.059m		
		Dist.	6518.892m	0.003m		
CP1172	CP1230	**Az.**	0°32'58.4812"	0°00'00.1012"	1:2129511	1:2129511
		ΔHt.	1.650m	0.010m		
		ΔElev.	1.931m	0.059m		
		Dist.	8082.796m	0.004m		
CP1172	CP5152	**Az.**	239°20'58.2971"	0°00'01.9363"	1:116899	1:116899
		ΔHt.	-0.072m	0.007m		
		ΔElev.	-0.083m	0.059m		
		Dist.	265.968m	0.002m		
CP1172	CP5154	**Az.**	68°37'38.8720"	0°00'00.4335"	1:598932	1:598932
		ΔHt.	0.025m	0.010m		
		ΔElev.	0.108m	0.060m		
		Dist.	2033.700m	0.003m		
CP1172	CP5153	**Az.**	69°19'42.8591"	0°00'01.3129"	1:165511	1:165511
		ΔHt.	-0.418m	0.010m		
		ΔElev.	-0.397m	0.060m		
		Dist.	525.974m	0.003m		
CP1176	CP1175	**Az.**	227°48'39.1699"	0°00'01.8482"	1:186627	1:186627
		ΔHt.	0.333m	0.067m		
		ΔElev.	0.200m	0.092m		
		Dist.	2404.861m	0.013m		
CP1176	CP1230	**Az.**	293°32'24.4535"	0°00'00.2007"	1:1105686	1:1105686
		ΔHt.	1.918m	0.028m		
		ΔElev.	1.748m	0.064m		
		Dist.	8362.850m	0.008m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1176	CP1231	**Az.**	347°03'57.7828"	0°00'00.2100"	1:800570	1:800570
		ΔHt.	3.993m	0.019m		
		ΔElev.	4.134m	0.067m		
		Dist.	5657.489m	0.007m		
K 523	CP1179	**Az.**	274°35'16.8019"	0°00'00.4683"	1:314609	1:314609
		ΔHt.	-3.639m	0.022m		
		ΔElev.	-3.736m	0.047m		
		Dist.	2147.235m	0.007m		
K 523	CP1180	**Az.**	12°33'59.2153"	0°00'00.6799"	1:447679	1:447679
		ΔHt.	-3.736m	0.019m		
		ΔElev.	-3.695m	0.046m		
		Dist.	1805.779m	0.004m		
CP1101	CP1100	**Az.**	165°10'52.9273"	0°00'00.4223"	1:327854	1:327854
		ΔHt.	-0.276m	0.020m		
		ΔElev.	-0.318m	0.062m		
		Dist.	3392.588m	0.010m		
CP1101	CP1096	**Az.**	206°29'55.7872"	0°00'00.1894"	1:1296424	1:1296424
		ΔHt.	1.327m	0.016m		
		ΔElev.	1.159m	0.061m		
		Dist.	8931.476m	0.007m		
CP1098	CP1094	**Az.**	177°41'20.3770"	0°00'00.3026"	1:737264	1:737264
		ΔHt.	-0.555m	0.013m		
		ΔElev.	-0.595m	0.060m		
		Dist.	3586.642m	0.005m		
CP1098	CP1226	**Az.**	38°15'24.2200"	0°00'00.2221"	1:1076549	1:1076549
		ΔHt.	-2.314m	0.010m		
		ΔElev.	-2.232m	0.059m		
		Dist.	4014.323m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1098	CP1099	**Az.**	359°06'06.9934"	0°00'00.2300"	1:670414	1:670414
		ΔHt.	-0.512m	0.009m		
		ΔElev.	-0.479m	0.060m		
		Dist.	2448.302m	0.004m		
CP1098	CP1093	**Az.**	121°19'44.6446"	0°00'00.1838"	1:736638	1:736638
		ΔHt.	-3.648m	0.014m		
		ΔElev.	-3.630m	0.060m		
		Dist.	4896.081m	0.007m		
CP1094	CP1093	**Az.**	75°34'59.1044"	0°00'00.3137"	1:670555	1:670555
		ΔHt.	-3.092m	0.016m		
		ΔElev.	-3.035m	0.061m		
		Dist.	4168.872m	0.006m		
CP1094	CP1095	**Az.**	284°23'32.8081"	0°00'00.2035"	1:761576	1:761576
		ΔHt.	1.980m	0.012m		
		ΔElev.	1.955m	0.061m		
		Dist.	4372.848m	0.006m		
CP1232	CP1179	**Az.**	124°13'35.6703"	0°00'00.2738"	1:636359	1:636359
		ΔHt.	0.007m	0.018m		
		ΔElev.	0.056m	0.066m		
		Dist.	4329.549m	0.007m		
CP1232	CP1180	**Az.**	97°51'19.5946"	0°00'00.2160"	1:719771	1:719771
		ΔHt.	-0.090m	0.025m		
		ΔElev.	0.097m	0.065m		
		Dist.	6170.168m	0.009m		
CP1232	CP1231	**Az.**	212°01'26.8760"	0°00'00.3195"	1:675523	1:675523
		ΔHt.	3.418m	0.024m		
		ΔElev.	3.176m	0.066m		
		Dist.	5037.765m	0.007m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1167	CP1166	**Az.**	180°20'12.5364"	0°00'00.4128"	1:518346	1:518346
		ΔHt.	0.219m	0.012m		
		ΔElev.	0.156m	0.059m		
		Dist.	2604.048m	0.005m		
CP1167	CP1168	**Az.**	7°31'18.5957"	0°00'00.5631"	1:379972	1:379972
		ΔHt.	0.585m	0.008m		
		ΔElev.	0.622m	0.059m		
		Dist.	1311.326m	0.003m		
CP1111	CP1228	**Az.**	235°40'23.2711"	0°00'00.1095"	1:1628513	1:1628513
		ΔHt.	1.643m	0.014m		
		ΔElev.	1.224m	0.061m		
		Dist.	9946.171m	0.006m		
CP1111	CP1109	**Az.**	275°10'17.2437"	0°00'00.3199"	1:685595	1:685595
		ΔHt.	0.851m	0.015m		
		ΔElev.	0.730m	0.060m		
		Dist.	3819.432m	0.006m		
CP1111	CP1230	**Az.**	134°26'58.1876"	0°00'00.1954"	1:1289081	1:1289081
		ΔHt.	-1.023m	0.012m		
		ΔElev.	-1.012m	0.060m		
		Dist.	5630.309m	0.004m		
CP1111	CP1110	**Az.**	59°06'09.2876"	0°00'00.3755"	1:470894	1:470894
		ΔHt.	-0.274m	0.017m		
		ΔElev.	-0.121m	0.061m		
		Dist.	3237.764m	0.007m		
CP1228	CP1229	**Az.**	110°42'08.9984"	0°00'00.1837"	1:1338352	1:1338352
		ΔHt.	-2.306m	0.016m		
		ΔElev.	-2.189m	0.060m		
		Dist.	7347.908m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1228	CP1104	**Az.**	323°22'36.2170"	0°00'00.1644"	1:1296583	1:1296583
		ΔHt.	1.684m	0.019m		
		ΔElev.	1.712m	0.061m		
		Dist.	8839.502m	0.007m		
CP1226	CP1244	**Az.**	53°11'01.7512"	0°00'00.1513"	1:1574929	1:1574929
		ΔHt.	-1.446m	0.014m		
		ΔElev.	-1.237m	0.059m		
		Dist.	7507.738m	0.005m		
CP1226	CP1100	**Az.**	318°02'24.0837"	0°00'00.4510"	1:411458	1:411458
		ΔHt.	2.386m	0.014m		
		ΔElev.	2.390m	0.061m		
		Dist.	2369.370m	0.006m		
CP1092	CP1162	**Az.**	97°24'55.0553"	0°00'00.2028"	1:689761	1:689761
		ΔHt.	-0.629m	0.019m		
		ΔElev.	-0.571m	0.061m		
		Dist.	5046.942m	0.007m		
CP1092	CP1091a	**Az.**	251°58'36.0777"	0°00'00.2666"	1:678397	1:678397
		ΔHt.	1.146m	0.018m		
		ΔElev.	1.083m	0.061m		
		Dist.	4609.748m	0.007m		
CP1229	CP1170	**Az.**	157°46'53.1912"	0°00'00.1128"	1:2090927	1:2090927
		ΔHt.	-2.065m	0.008m		
		ΔElev.	-2.170m	0.059m		
		Dist.	5889.247m	0.003m		
CP1229	CP1244	**Az.**	251°06'14.1993"	0°00'00.1144"	1:1685244	1:1685244
		ΔHt.	0.946m	0.011m		
		ΔElev.	0.711m	0.059m		
		Dist.	7049.457m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1229	CP1169	**Az.**	170°42'31.3370"	0°00'00.1021"	1:2385656	1:2385656
		ΔHt.	-1.940m	0.008m		
		ΔElev.	-2.101m	0.059m		
		Dist.	6445.533m	0.003m		
CP1229	CP1230	**Az.**	51°28'17.3661"	0°00'00.1107"	1:1557707	1:1557707
		ΔHt.	-0.361m	0.010m		
		ΔElev.	-0.048m	0.059m		
		Dist.	6852.870m	0.004m		
CP1179	CP1180	**Az.**	57°51'47.4182"	0°00'00.4589"	1:460900	1:460900
		ΔHt.	-0.097m	0.025m		
		ΔElev.	0.041m	0.066m		
		Dist.	2991.293m	0.006m		
CP1180	CP5156	**Az.**	85°38'16.4048"	0°00'00.2318"	1:703754	1:703754
		ΔHt.	-0.977m	0.008m		
		ΔElev.	-0.912m	0.065m		
		Dist.	1934.375m	0.003m		
CP1180	CP5157	**Az.**	58°05'18.1288"	0°00'00.1860"	1:1254831	1:1254831
		ΔHt.	-0.509m	0.008m		
		ΔElev.	-0.385m	0.065m		
		Dist.	2917.613m	0.002m		
CP1109	CP1104	**Az.**	276°43'41.5092"	0°00'00.1246"	1:1720771	1:1720771
		ΔHt.	2.476m	0.015m		
		ΔElev.	2.207m	0.061m		
		Dist.	9746.012m	0.006m		
CP1109	CP1103	**Az.**	236°30'10.9677"	0°00'00.1409"	1:2064919	1:2064919
		ΔHt.	1.752m	0.017m		
		ΔElev.	1.314m	0.060m		
		Dist.	11536.927m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1109	CP1108	**Az.**	330°50'45.1112"	0°00'00.3791"	1:555743	1:555743
		ΔHt.	-0.324m	0.013m		
		ΔElev.	-0.300m	0.060m		
		Dist.	2848.038m	0.005m		
CP1104	CP1103	**Az.**	179°30'44.7448"	0°00'00.1694"	1:1148173	1:1148173
		ΔHt.	-0.724m	0.017m		
		ΔElev.	-0.893m	0.060m		
		Dist.	7509.205m	0.007m		
CP1104	CP1107	**Az.**	67°58'02.2810"	0°00'00.1279"	1:1390614	1:1390614
		ΔHt.	-0.709m	0.008m		
		ΔElev.	-0.526m	0.061m		
		Dist.	4887.829m	0.004m		
CP1104	CP1105	**Az.**	358°57'03.2231"	0°00'00.1693"	1:1531647	1:1531647
		ΔHt.	-1.096m	0.007m		
		ΔElev.	-0.999m	0.061m		
		Dist.	3984.259m	0.003m		
CP1099	CP1100	**Az.**	20°51'22.4686"	0°00'00.3721"	1:431371	1:431371
		ΔHt.	0.584m	0.015m		
		ΔElev.	0.637m	0.061m		
		Dist.	2638.701m	0.006m		
CP1099	CP1096	**Az.**	240°07'42.4768"	0°00'00.1665"	1:1520492	1:1520492
		ΔHt.	2.187m	0.009m		
		ΔElev.	2.114m	0.060m		
		Dist.	4512.814m	0.003m		
CP1166	CP1165	**Az.**	180°15'19.7398"	0°00'01.0592"	1:206152	1:206152
		ΔHt.	0.792m	0.012m		
		ΔElev.	0.768m	0.059m		
		Dist.	1039.190m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1170	CP5148	**Az.**	93°19'34.3440"	0°00'01.1784"	1:198855	1:198855
		ΔHt.	-0.378m	0.008m		
		ΔElev.	-0.363m	0.059m		
		Dist.	601.451m	0.003m		
CP1170	CP5149	**Az.**	101°06'50.3501"	0°00'01.3353"	1:163106	1:163106
		ΔHt.	0.549m	0.016m		
		ΔElev.	0.572m	0.061m		
		Dist.	1129.362m	0.007m		
CP1175	CP1230	**Az.**	310°05'18.7768"	0°00'00.3925"	1:388634	1:388634
		ΔHt.	1.586m	0.067m		
		ΔElev.	1.549m	0.089m		
		Dist.	7693.309m	0.020m		
CP1103	CP1244	**Az.**	129°29'57.7832"	0°00'00.1394"	1:1156557	1:1156557
		ΔHt.	-2.320m	0.014m		
		ΔElev.	-2.297m	0.060m		
		Dist.	7023.433m	0.006m		
CP1162	CP1091a	**Az.**	265°18'15.2166"	0°00'00.1141"	1:1316511	1:1316511
		ΔHt.	1.775m	0.019m		
		ΔElev.	1.654m	0.060m		
		Dist.	9420.211m	0.007m		
CP1168	CP1169	**Az.**	25°19'35.8835"	0°00'00.2929"	1:879348	1:879348
		ΔHt.	-2.133m	0.005m		
		ΔElev.	-2.082m	0.059m		
		Dist.	1464.308m	0.002m		
CP1168	CP5146	**Az.**	282°57'54.8393"	0°00'00.3305"	1:441513	1:441513
		ΔHt.	-1.522m	0.007m		
		ΔElev.	-1.545m	0.059m		
		Dist.	1389.670m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1168	CP5145	**Az.**	14°26'34.7384"	0°00'00.5577"	1:497239	1:497239
		ΔHt.	-2.320m	0.006m		
		ΔElev.	-2.287m	0.059m		
		Dist.	1036.980m	0.002m		
CP1168	CP5144	**Az.**	291°37'11.3351"	0°00'00.5319"	1:264630	1:264630
		ΔHt.	-1.560m	0.007m		
		ΔElev.	-1.570m	0.059m		
		Dist.	844.975m	0.003m		
CP1093	CP1091a	**Az.**	165°20'11.7780"	0°00'00.2175"	1:1033215	1:1033215
		ΔHt.	-0.456m	0.020m		
		ΔElev.	-0.520m	0.060m		
		Dist.	7151.898m	0.007m		
CP1165	CP1164	**Az.**	180°18'30.4651"	0°00'00.2605"	1:930654	1:930654
		ΔHt.	-2.050m	0.006m		
		ΔElev.	-2.104m	0.058m		
		Dist.	2628.135m	0.003m		
CP1230	CP1231	**Az.**	71°12'18.9465"	0°00'00.2465"	1:1139410	1:1139410
		ΔHt.	2.075m	0.025m		
		ΔElev.	2.385m	0.063m		
		Dist.	6759.695m	0.006m		
CP1231	CP1110	**Az.**	294°11'55.7240"	0°00'00.2011"	1:1170981	1:1170981
		ΔHt.	-1.326m	0.025m		
		ΔElev.	-1.494m	0.063m		
		Dist.	8372.399m	0.007m		
CP1110	C 358	**Az.**	12°51'23.2347"	0°00'00.0843"	1:2082531	1:2082531
		ΔHt.	1.091m	0.023m		
		ΔElev.	1.570m	0.043m		
		Dist.	12961.632m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1110	CP1112	**Az.**	55°51'02.3433"	0°00'00.4546"	1:433905	1:433905
		ΔHt.	-0.948m	0.028m		
		ΔElev.	-0.771m	0.064m		
		Dist.	3680.679m	0.008m		
CP1110	CP1108	**Az.**	278°21'38.0282"	0°00'00.1709"	1:1338066	1:1338066
		ΔHt.	0.801m	0.016m		
		ΔElev.	0.552m	0.061m		
		Dist.	8054.198m	0.006m		
CP1110	B 529	**Az.**	313°28'52.9174"	0°00'00.0936"	1:2739560	1:2739560
		ΔHt.	1.859m	0.018m		
		ΔElev.	1.776m	0.043m		
		Dist.	14031.175m	0.005m		
C 358	CP1112	**Az.**	179°08'07.6915"	0°00'00.1417"	1:1604233	1:1604233
		ΔHt.	-2.039m	0.023m		
		ΔElev.	-2.341m	0.048m		
		Dist.	10571.776m	0.007m		
C 358	CP1115	**Az.**	115°48'14.0918"	0°00'00.2015"	1:674966	1:674966
		ΔHt.	-0.340m	0.019m		
		ΔElev.	-0.249m	0.047m		
		Dist.	5459.786m	0.008m		
C 358	CP1113	**Az.**	162°26'09.5466"	0°00'00.1326"	1:1583375	1:1583375
		ΔHt.	-1.565m	0.017m		
		ΔElev.	-1.701m	0.046m		
		Dist.	8354.216m	0.005m		
C 358	CP1116	**Az.**	85°23'55.6256"	0°00'00.1709"	1:1051027	1:1051027
		ΔHt.	-1.122m	0.019m		
		ΔElev.	-0.885m	0.047m		
		Dist.	7810.388m	0.007m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1112	CP1113	**Az.**	42°11'07.5623"	0°00'00.3651"	1:558216	1:558216
		ΔHt.	0.475m	0.021m		
		ΔElev.	0.640m	0.066m		
		Dist.	3516.710m	0.006m		
A 518	CP1106	**Az.**	108°16'04.4332"	0°00'00.0528"	1:3149397	1:3149397
		ΔHt.	-31.050m	0.008m		
		ΔElev.	-30.850m	0.043m		
		Dist.	10236.572m	0.003m		
A 518	CP1105	**Az.**	124°51'48.9238"	0°00'00.0584"	1:3016771	1:3016771
		ΔHt.	-31.629m	0.008m		
		ΔElev.	-31.541m	0.043m		
		Dist.	9800.166m	0.003m		
CP1106	CP1107	**Az.**	147°14'48.9273"	0°00'00.1498"	1:1475064	1:1475064
		ΔHt.	-0.191m	0.010m		
		ΔElev.	-0.218m	0.061m		
		Dist.	5401.275m	0.004m		
CP1106	CP1105	**Az.**	215°06'15.1687"	0°00'00.1528"	1:1595731	1:1595731
		ΔHt.	-0.578m	0.005m		
		ΔElev.	-0.691m	0.061m		
		Dist.	2923.748m	0.002m		
CP1118	CP1185	**Az.**	137°04'21.7336"	0°00'00.1206"	1:1548574	1:1548574
		ΔHt.	-2.780m	0.013m		
		ΔElev.	-2.716m	0.063m		
		Dist.	7662.291m	0.005m		
CP1118	CP1187	**Az.**	172°57'49.3015"	0°00'00.2638"	1:548317	1:548317
		ΔHt.	-4.011m	0.019m		
		ΔElev.	-4.044m	0.064m		
		Dist.	4534.818m	0.008m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1118	OKEEPORT RESET	**Az.**	61°56'17.0651"	0°00'00.1789"	1:1279844	1:1279844
		ΔHt.	0.210m	0.014m		
		ΔElev.	0.361m	0.044m		
		Dist.	5394.793m	0.004m		
CP1118	CP1119	**Az.**	80°04'57.5502"	0°00'00.2491"	1:894938	1:894938
		ΔHt.	0.395m	0.012m		
		ΔElev.	0.481m	0.063m		
		Dist.	3493.361m	0.004m		
CP1118	CP1117	**Az.**	270°02'49.7806"	0°00'00.3492"	1:758201	1:758201
		ΔHt.	0.176m	0.015m		
		ΔElev.	0.084m	0.063m		
		Dist.	3549.098m	0.005m		
CP1185	CP1187	**Az.**	283°24'41.1503"	0°00'00.3417"	1:834173	1:834173
		ΔHt.	-1.231m	0.018m		
		ΔElev.	-1.328m	0.064m		
		Dist.	4793.295m	0.006m		
CP1185	CP1119	**Az.**	344°03'26.5120"	0°00'00.1426"	1:1253932	1:1253932
		ΔHt.	3.175m	0.014m		
		ΔElev.	3.197m	0.063m		
		Dist.	6461.393m	0.005m		
CP1185	CP1122	**Az.**	72°51'55.5567"	0°00'00.4584"	1:612688	1:612688
		ΔHt.	-0.565m	0.009m		
		ΔElev.	-0.519m	0.063m		
		Dist.	1805.262m	0.003m		
CP1185	CP1184	**Az.**	201°39'14.8154"	0°00'00.4910"	1:378419	1:378419
		ΔHt.	-0.291m	0.019m		
		ΔElev.	-0.357m	0.064m		
		Dist.	2531.234m	0.007m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1185	CP5177	**Az.**	57°54'39.1840"	0°00'00.4244"	1:611041	1:611041
		ΔHt.	-1.717m	0.010m		
		ΔElev.	-1.664m	0.063m		
		Dist.	2030.044m	0.003m		
CP1185	CP5176	**Az.**	15°21'33.3928"	0°00'00.5392"	1:243537	1:243537
		ΔHt.	-1.516m	0.012m		
		ΔElev.	-1.490m	0.063m		
		Dist.	1261.072m	0.005m		
CP1187	CP1183	**Az.**	155°57'15.2102"	0°00'00.2247"	1:709664	1:709664
		ΔHt.	1.967m	0.022m		
		ΔElev.	1.912m	0.065m		
		Dist.	6379.278m	0.009m		
CP1187	CP1184	**Az.**	132°52'30.2929"	0°00'00.3245"	1:601081	1:601081
		ΔHt.	0.941m	0.022m		
		ΔElev.	0.970m	0.065m		
		Dist.	5089.588m	0.008m		
CP1115	CP1114	**Az.**	179°24'50.3980"	0°00'00.9682"	1:224666	1:224666
		ΔHt.	-1.218m	0.025m		
		ΔElev.	-1.265m	0.067m		
		Dist.	2121.030m	0.009m		
CP1115	CP1116	**Az.**	43°43'20.1472"	0°00'00.4433"	1:677774	1:677774
		ΔHt.	-0.782m	0.021m		
		ΔElev.	-0.637m	0.066m		
		Dist.	4153.897m	0.006m		
CP1114	CP1186	**Az.**	89°44'45.4865"	0°00'00.5222"	1:409060	1:409060
		ΔHt.	-0.857m	0.020m		
		ΔElev.	-0.742m	0.067m		
		Dist.	3244.833m	0.008m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1114	CP1113	**Az.**	214°54'05.2442"	0°00'00.4593"	1:650369	1:650369
		ΔHt.	-0.006m	0.020m		
		ΔElev.	-0.186m	0.066m		
		Dist.	4226.450m	0.006m		
CP1186	CP1116	**Az.**	355°35'18.2802"	0°00'00.3326"	1:667927	1:667927
		ΔHt.	1.294m	0.021m		
		ΔElev.	1.371m	0.066m		
		Dist.	5123.827m	0.008m		
OKEEPORT RESET	CP1001	**Az.**	92°18'29.5915"	0°00'00.2902"	1:678699	1:678699
		ΔHt.	-0.081m	0.032m		
		ΔElev.	0.011m	0.051m		
		Dist.	6381.269m	0.009m		
OKEEPORT RESET	CP1119	**Az.**	214°17'40.0359"	0°00'00.3478"	1:600200	1:600200
		ΔHt.	0.185m	0.012m		
		ΔElev.	0.120m	0.045m		
		Dist.	2343.016m	0.004m		
OKEEPORT RESET	CP1003	**Az.**	101°55'42.5651"	0°00'00.5623"	1:375344	1:375344
		ΔHt.	-1.190m	0.014m		
		ΔElev.	-1.185m	0.046m		
		Dist.	1785.811m	0.005m		
CP1001	CP1003	**Az.**	268°38'31.7261"	0°00'00.4238"	1:472776	1:472776
		ΔHt.	-1.109m	0.033m		
		ΔElev.	-1.196m	0.069m		
		Dist.	4630.200m	0.010m		
CP1001	CP1121	**Az.**	248°28'20.4587"	0°00'01.2329"	1:287685	1:287685
		ΔHt.	-2.044m	0.043m		
		ΔElev.	-2.095m	0.075m		
		Dist.	2880.581m	0.010m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1001	CP1004	**Az.**	119°34'49.0894"	0°00'00.4458"	1:362530	1:362530
		ΔHt.	0.660m	0.025m		
		ΔElev.	0.701m	0.071m		
		Dist.	3335.488m	0.009m		
CP1001	C T2	**Az.**	80°41'13.1490"	0°00'00.0922"	1:2318101	1:2318101
		ΔHt.	-1.311m	0.035m		
		ΔElev.	-1.014m	0.051m		
		Dist.	20927.294m	0.009m		
CP1001	CP1002	**Az.**	182°20'43.0146"	0°00'01.2531"	1:68390	1:68390
		ΔHt.	-0.393m	0.050m		
		ΔElev.	-0.398m	0.081m		
		Dist.	1518.068m	0.022m		
CP1108	B 529	**Az.**	345°20'51.6519"	0°00'00.1058"	1:2285167	1:2285167
		ΔHt.	1.058m	0.013m		
		ΔElev.	1.224m	0.043m		
		Dist.	8767.735m	0.004m		
CP1108	CP1107	**Az.**	277°20'26.1848"	0°00'00.2170"	1:800323	1:800323
		ΔHt.	2.091m	0.010m		
		ΔElev.	1.980m	0.060m		
		Dist.	3790.264m	0.005m		
CP1119	CP1120	**Az.**	90°11'31.6264"	0°00'00.2876"	1:802870	1:802870
		ΔHt.	-0.817m	0.012m		
		ΔElev.	-0.749m	0.063m		
		Dist.	3193.498m	0.004m		
CP1119	CP5227	**Az.**	131°29'13.9117"	0°00'00.9289"	1:200145	1:200145
		ΔHt.	-0.281m	0.014m		
		ΔElev.	-0.269m	0.064m		
		Dist.	914.212m	0.005m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1119	CP5229	**Az.**	211°41'57.2416"	0°00'01.4586"	1:135348	1:135348
		ΔHt.	-0.027m	0.018m		
		ΔElev.	-0.039m	0.065m		
		Dist.	710.639m	0.005m		
CP1119	CP5228	**Az.**	66°26'29.9462"	0°00'02.2147"	1:150041	1:150041
		ΔHt.	-0.145m	0.018m		
		ΔElev.	-0.131m	0.065m		
		Dist.	606.476m	0.004m		
CP1117	CP1116	**Az.**	267°24'48.2239"	0°00'00.4426"	1:462223	1:462223
		ΔHt.	-0.430m	0.024m		
		ΔElev.	-0.543m	0.065m		
		Dist.	3887.361m	0.008m		
CP1183	CP1184	**Az.**	25°34'55.3383"	0°00'00.4407"	1:422924	1:422924
		ΔHt.	-1.027m	0.017m		
		ΔElev.	-0.942m	0.065m		
		Dist.	2619.252m	0.006m		
CP1183	CP5165	**Az.**	352°12'36.5561"	0°00'02.7298"	1:66409	1:66409
		ΔHt.	-0.204m	0.008m		
		ΔElev.	-0.198m	0.065m		
		Dist.	228.577m	0.003m		
CP1183	CP5166	**Az.**	310°01'17.9425"	0°00'01.3688"	1:112868	1:112868
		ΔHt.	-1.068m	0.009m		
		ΔElev.	-1.069m	0.065m		
		Dist.	480.887m	0.004m		
CP1183	CP5167	**Az.**	20°56'22.9246"	0°00'02.3393"	1:94879	1:94879
		ΔHt.	-1.316m	0.012m		
		ΔElev.	-1.301m	0.065m		
		Dist.	437.106m	0.005m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1120	CP1122	**Az.**	176°54'46.3619"	0°00'00.1953"	1:945441	1:945441
		ΔHt.	-2.923m	0.015m		
		ΔElev.	-2.967m	0.063m		
		Dist.	5678.119m	0.006m		
CP1120	CP1003	**Az.**	355°26'23.6661"	0°00'00.5987"	1:324557	1:324557
		ΔHt.	-0.558m	0.014m		
		ΔElev.	-0.556m	0.064m		
		Dist.	1582.656m	0.005m		
CP1120	CP1121	**Az.**	70°54'50.0071"	0°00'01.7110"	1:190188	1:190188
		ΔHt.	-1.492m	0.036m		
		ΔElev.	-1.455m	0.071m		
		Dist.	1929.870m	0.010m		
CP1120	CP5203	**Az.**	316°37'40.7364"	0°00'01.1494"	1:133188	1:133188
		ΔHt.	0.227m	0.008m		
		ΔElev.	0.221m	0.064m		
		Dist.	561.817m	0.004m		
CP1120	CP5200	**Az.**	110°00'14.3506"	0°00'02.0022"	1:102206	1:102206
		ΔHt.	-0.465m	0.008m		
		ΔElev.	-0.459m	0.064m		
		Dist.	344.669m	0.003m		
CP1120	CP5201	**Az.**	222°31'02.6639"	0°00'05.3421"	1:49328	1:49328
		ΔHt.	-0.135m	0.010m		
		ΔElev.	-0.138m	0.064m		
		Dist.	195.578m	0.004m		
CP1122	CP1123	**Az.**	72°29'50.1908"	0°00'00.7154"	1:445400	1:445400
		ΔHt.	6.360m	0.026m		
		ΔElev.	6.436m	0.066m		
		Dist.	3496.175m	0.008m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1122	CP1124	**Az.**	93°15'12.4170"	0°00'00.2047"	1:1141921	1:1141921
		ΔHt.	2.311m	0.023m		
		ΔElev.	2.420m	0.062m		
		Dist.	6685.988m	0.006m		
CP1122	CP5177	**Az.**	359°27'32.3690"	0°00'01.1335"	1:116226	1:116226
		ΔHt.	-1.152m	0.010m		
		ΔElev.	-1.145m	0.063m		
		Dist.	546.600m	0.005m		
CP1122	CP5176	**Az.**	296°11'47.6344"	0°00'00.7002"	1:384205	1:384205
		ΔHt.	-0.951m	0.013m		
		ΔElev.	-0.971m	0.063m		
		Dist.	1550.255m	0.004m		
CP1003	CP5207	**Az.**	60°39'46.0246"	0°00'01.8195"	1:130911	1:130911
		ΔHt.	-0.172m	0.010m		
		ΔElev.	-0.165m	0.065m		
		Dist.	402.703m	0.003m		
CP1003	CP5205	**Az.**	147°39'21.1775"	0°00'01.3419"	1:139675	1:139675
		ΔHt.	0.440m	0.010m		
		ΔElev.	0.445m	0.065m		
		Dist.	505.594m	0.004m		
CP1003	CP5206	**Az.**	211°50'09.8196"	0°00'01.2656"	1:129267	1:129267
		ΔHt.	0.202m	0.012m		
		ΔElev.	0.195m	0.066m		
		Dist.	602.535m	0.005m		
CP1184	CP5173	**Az.**	203°52'49.1276"	0°00'03.3775"	1:48200	1:48200
		ΔHt.	-0.665m	0.019m		
		ΔElev.	-0.676m	0.067m		
		Dist.	346.422m	0.007m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1184	CP5175	**Az.**	27°51'45.4181"	0°00'03.7951"	1:41559	1:41559
		ΔHt.	-0.204m	0.017m		
		ΔElev.	-0.196m	0.067m		
		Dist.	263.593m	0.006m		
CP1184	CP5174	**Az.**	100°18'13.6904"	0°00'07.7619"	1:38947	1:38947
		ΔHt.	-0.888m	0.017m		
		ΔElev.	-0.884m	0.067m		
		Dist.	175.481m	0.005m		
S 191 W	CP1125	**Az.**	114°06'17.8537"	0°00'00.2376"	1:884877	1:884877
		ΔHt.	-6.391m	0.010m		
		ΔElev.	-6.358m	0.044m		
		Dist.	3186.599m	0.004m		
S 191 W	CP1126	**Az.**	123°25'34.7515"	0°00'00.1524"	1:1156051	1:1156051
		ΔHt.	-6.449m	0.014m		
		ΔElev.	-6.427m	0.044m		
		Dist.	5625.730m	0.005m		
S 191 W	CP1124	**Az.**	5°46'16.7253"	0°00'02.8949"	1:57091	1:57091
		ΔHt.	-4.100m	0.012m		
		ΔElev.	-4.081m	0.044m		
		Dist.	227.140m	0.004m		
S 191 W	CP1007	**Az.**	50°33'13.4546"	0°00'00.2656"	1:688975	1:688975
		ΔHt.	-3.733m	0.014m		
		ΔElev.	-3.639m	0.045m		
		Dist.	4269.953m	0.006m		
S 191 W	CP1008	**Az.**	63°05'15.3423"	0°00'00.2125"	1:1212566	1:1212566
		ΔHt.	-1.064m	0.012m		
		ΔElev.	-0.971m	0.044m		
		Dist.	4387.800m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1125	CP1126	**Az.**	135°11'26.7681"	0°00'00.3305"	1:524841	1:524841
		ΔHt.	-0.058m	0.013m		
		ΔElev.	-0.068m	0.062m		
		Dist.	2534.323m	0.005m		
CP1125	CP1009	**Az.**	61°41'02.8102"	0°00'00.3184"	1:822781	1:822781
		ΔHt.	2.538m	0.012m		
		ΔElev.	2.596m	0.062m		
		Dist.	3078.481m	0.004m		
CP1127	CP1126	**Az.**	313°16'55.6797"	0°00'00.3749"	1:429019	1:429019
		ΔHt.	-0.078m	0.015m		
		ΔElev.	-0.065m	0.062m		
		Dist.	2682.520m	0.006m		
CP1127	CP1188	**Az.**	42°12'40.4288"	0°00'00.5118"	1:514852	1:514852
		ΔHt.	1.767m	0.011m		
		ΔElev.	1.812m	0.062m		
		Dist.	1822.524m	0.004m		
CP1127	CP1128	**Az.**	148°46'08.2809"	0°00'00.9882"	1:175173	1:175173
		ΔHt.	0.077m	0.026m		
		ΔElev.	0.053m	0.065m		
		Dist.	1819.225m	0.010m		
CP1126	CP1010	**Az.**	50°40'20.2153"	0°00'01.1570"	1:502931	1:502931
		ΔHt.	2.254m	0.016m		
		ΔElev.	2.314m	0.063m		
		Dist.	2765.815m	0.005m		
CP1126	CP1011	**Az.**	28°22'12.4425"	0°00'00.2810"	1:910207	1:910207
		ΔHt.	2.862m	0.012m		
		ΔElev.	2.941m	0.062m		
		Dist.	3751.098m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1130	CP1129	**Az.**	349°32'35.7911"	0°00'00.4630"	1:550338	1:550338
		ΔHt.	1.360m	0.015m		
		ΔElev.	1.428m	0.061m		
		Dist.	2444.101m	0.004m		
CP1130	CP1016	**Az.**	44°33'20.7595"	0°00'00.1672"	1:1097807	1:1097807
		ΔHt.	3.726m	0.012m		
		ΔElev.	3.887m	0.060m		
		Dist.	5237.175m	0.005m		
CP1130	CP1128	**Az.**	331°26'20.3417"	0°00'00.2973"	1:643034	1:643034
		ΔHt.	1.034m	0.023m		
		ΔElev.	1.138m	0.063m		
		Dist.	5580.756m	0.009m		
CP1130	L 048	**Az.**	203°03'58.4010"	0°00'01.4087"	1:137812	1:137812
		ΔHt.	5.571m	0.008m		
		ΔElev.	5.555m	0.042m		
		Dist.	397.742m	0.003m		
CP1130	CP1132	**Az.**	159°15'20.8895"	0°00'00.1395"	1:1214436	1:1214436
		ΔHt.	0.552m	0.009m		
		ΔElev.	0.430m	0.060m		
		Dist.	4410.525m	0.004m		
CP1130	CP1017	**Az.**	59°44'55.5385"	0°00'00.1099"	1:1534707	1:1534707
		ΔHt.	4.026m	0.009m		
		ΔElev.	4.199m	0.060m		
		Dist.	6345.665m	0.004m		
CP1130	CP1189	**Az.**	88°09'06.0132"	0°00'00.1110"	1:1809607	1:1809607
		ΔHt.	3.032m	0.007m		
		ΔElev.	3.111m	0.060m		
		Dist.	4819.569m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1130	CP5125	**Az.**	109°40'41.8969"	0°00'00.1190"	1:1554354	1:1554354
		ΔHt.	4.584m	0.014m		
		ΔElev.	4.636m	0.061m		
		Dist.	10660.175m	0.007m		
CP1130	CP5124	**Az.**	76°14'01.0359"	0°00'00.1445"	1:1828356	1:1828356
		ΔHt.	3.965m	0.011m		
		ΔElev.	4.109m	0.060m		
		Dist.	6595.504m	0.004m		
CP1129	CP1128	**Az.**	318°18'47.8255"	0°00'00.3692"	1:369185	1:369185
		ΔHt.	-0.326m	0.021m		
		ΔElev.	-0.290m	0.065m		
		Dist.	3345.020m	0.009m		
CP1129	CP1015	**Az.**	40°34'54.1714"	0°00'00.6173"	1:647997	1:647997
		ΔHt.	2.443m	0.022m		
		ΔElev.	2.546m	0.065m		
		Dist.	3576.872m	0.006m		
CP1123	CP1124	**Az.**	113°12'04.0239"	0°00'00.6409"	1:374263	1:374263
		ΔHt.	-4.049m	0.027m		
		ΔElev.	-4.016m	0.065m		
		Dist.	3634.443m	0.010m		
CP1123	CP1121	**Az.**	340°55'51.7499"	0°00'00.3101"	1:365574	1:365574
		ΔHt.	-4.930m	0.032m		
		ΔElev.	-4.924m	0.073m		
		Dist.	5554.704m	0.015m		
CP1123	CP1004	**Az.**	38°56'11.4303"	0°00'00.4298"	1:556955	1:556955
		ΔHt.	-2.226m	0.031m		
		ΔElev.	-2.129m	0.069m		
		Dist.	5991.923m	0.011m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1123	CP1002	**Az.**	9°30'48.8535"	0°00'00.4015"	1:225335	1:225335
		ΔHt.	-3.278m	0.044m		
		ΔElev.	-3.228m	0.079m		
		Dist.	4857.115m	0.022m		
CP1124	CP1006	**Az.**	33°29'17.3178"	0°00'00.3555"	1:508408	1:508408
		ΔHt.	0.574m	0.022m		
		ΔElev.	0.637m	0.065m		
		Dist.	3514.358m	0.007m		
CP1190	CP1021	**Az.**	89°39'13.9787"	0°00'00.1224"	1:1686506	1:1686506
		ΔHt.	1.511m	0.010m		
		ΔElev.	1.621m	0.060m		
		Dist.	5370.039m	0.003m		
CP1190	CP1132	**Az.**	307°25'21.7990"	0°00'00.1209"	1:1489282	1:1489282
		ΔHt.	-0.582m	0.006m		
		ΔElev.	-0.546m	0.060m		
		Dist.	3920.835m	0.003m		
CP1190	CP1134	**Az.**	196°16'07.4518"	0°00'00.1310"	1:1959387	1:1959387
		ΔHt.	0.140m	0.005m		
		ΔElev.	-0.010m	0.060m		
		Dist.	3398.860m	0.002m		
CP1190	CP1020	**Az.**	70°20'53.4276"	0°00'00.0957"	1:2013328	1:2013328
		ΔHt.	2.426m	0.008m		
		ΔElev.	2.611m	0.060m		
		Dist.	5941.768m	0.003m		
CP1190	CP1133	**Az.**	280°17'22.4846"	0°00'00.1640"	1:945012	1:945012
		ΔHt.	-0.484m	0.005m		
		ΔElev.	-0.512m	0.060m		
		Dist.	2386.755m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1021	CP1020	**Az.**	6°34'31.4430"	0°00'00.2588"	1:733854	1:733854
		ΔHt.	0.916m	0.008m		
		ΔElev.	0.989m	0.060m		
		Dist.	1978.717m	0.003m		
CP1021	EDN 6 25	**Az.**	101°54'39.7813"	0°00'00.0651"	1:3105271	1:3105271
		ΔHt.	1.379m	0.011m		
		ΔElev.	1.499m	0.043m		
		Dist.	10416.105m	0.003m		
CP1021	CP1022	**Az.**	180°31'38.0345"	0°00'00.1607"	1:1123776	1:1123776
		ΔHt.	0.582m	0.009m		
		ΔElev.	0.443m	0.061m		
		Dist.	3609.775m	0.003m		
CP1021	CP5125	**Az.**	359°51'44.7951"	0°00'00.4598"	1:407497	1:407497
		ΔHt.	1.940m	0.015m		
		ΔElev.	2.039m	0.061m		
		Dist.	2881.954m	0.007m		
CP1021	CP5126	**Az.**	98°55'52.2129"	0°00'00.5560"	1:417782	1:417782
		ΔHt.	2.531m	0.062m		
		ΔElev.	2.670m	0.086m		
		Dist.	9623.315m	0.023m		
CP1188	CP1010	**Az.**	335°10'05.5069"	0°00'00.4124"	1:158612	1:158612
		ΔHt.	0.409m	0.016m		
		ΔElev.	0.437m	0.063m		
		Dist.	2470.219m	0.016m		
CP1188	CP1012	**Az.**	43°09'26.0098"	0°00'00.3032"	1:825662	1:825662
		ΔHt.	1.454m	0.011m		
		ΔElev.	1.524m	0.062m		
		Dist.	3243.827m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1188	CP1014	**Az.**	121°49'00.2650"	0°00'00.2811"	1:708732	1:708732
		ΔHt.	1.573m	0.014m		
		ΔElev.	1.571m	0.063m		
		Dist.	3729.526m	0.005m		
CP1188	CP1013	**Az.**	77°39'31.0061"	0°00'00.4947"	1:403181	1:403181
		ΔHt.	1.700m	0.020m		
		ΔElev.	1.757m	0.064m		
		Dist.	3473.747m	0.009m		
CP1188	CP5345	**Az.**	82°36'40.3907"	0°00'00.2463"	1:988246	1:988246
		ΔHt.	1.030m	0.014m		
		ΔElev.	1.094m	0.063m		
		Dist.	4348.994m	0.004m		
CP1016	CP1017	**Az.**	106°30'23.9787"	0°00'00.5090"	1:412831	1:412831
		ΔHt.	0.300m	0.012m		
		ΔElev.	0.312m	0.061m		
		Dist.	1884.637m	0.005m		
CP1016	R 543	**Az.**	72°45'56.6300"	0°00'00.0615"	1:2881252	1:2881252
		ΔHt.	-0.640m	0.015m		
		ΔElev.	-0.392m	0.043m		
		Dist.	14650.153m	0.005m		
CP1016	CP1015	**Az.**	307°47'39.6023"	0°00'00.5122"	1:208093	1:208093
		ΔHt.	0.077m	0.023m		
		ΔElev.	0.087m	0.064m		
		Dist.	2266.002m	0.011m		
CP1007	C T2	**Az.**	59°55'40.0275"	0°00'00.0690"	1:2894891	1:2894891
		ΔHt.	-0.514m	0.025m		
		ΔElev.	-0.269m	0.045m		
		Dist.	17224.831m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1007	CP1008	**Az.**	139°46'12.3806"	0°00'01.1788"	1:219921	1:219921
		ΔHt.	2.669m	0.011m		
		ΔElev.	2.669m	0.063m		
		Dist.	952.318m	0.004m		
CP1010	CP1011	**Az.**	347°01'08.6944"	0°00'00.8047"	1:103859	1:103859
		ΔHt.	0.608m	0.016m		
		ΔElev.	0.627m	0.063m		
		Dist.	1588.381m	0.015m		
CP1010	CP1012	**Az.**	87°48'21.8701"	0°00'00.9027"	1:411198	1:411198
		ΔHt.	1.045m	0.016m		
		ΔElev.	1.087m	0.063m		
		Dist.	3258.547m	0.008m		
CP1131	L 048	**Az.**	334°32'56.0185"	0°00'00.4633"	1:566873	1:566873
		ΔHt.	4.091m	0.011m		
		ΔElev.	4.147m	0.043m		
		Dist.	2291.823m	0.004m		
CP1131	CP1189	**Az.**	56°59'37.9573"	0°00'00.1665"	1:950872	1:950872
		ΔHt.	1.552m	0.010m		
		ΔElev.	1.702m	0.060m		
		Dist.	4755.523m	0.005m		
L 048	CP1189	**Az.**	84°00'49.8922"	0°00'00.1221"	1:1508649	1:1508649
		ΔHt.	-2.539m	0.010m		
		ΔElev.	-2.444m	0.042m		
		Dist.	5000.153m	0.003m		
CP1132	CP1019	**Az.**	66°08'49.3566"	0°00'00.1390"	1:1292074	1:1292074
		ΔHt.	2.297m	0.010m		
		ΔElev.	2.477m	0.060m		
		Dist.	5961.232m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1132	CP1133	**Az.**	158°37'00.3168"	0°00'00.2813"	1:855575	1:855575
		ΔHt.	0.098m	0.006m		
		ΔElev.	0.034m	0.060m		
		Dist.	2100.745m	0.002m		
CP1132	CP1189	**Az.**	37°15'33.3916"	0°00'00.1493"	1:1558045	1:1558045
		ΔHt.	2.479m	0.009m		
		ΔElev.	2.681m	0.060m		
		Dist.	5377.077m	0.003m		
CP1132	CP5125	**Az.**	86°23'45.2897"	0°00'00.1776"	1:1512849	1:1512849
		ΔHt.	4.032m	0.013m		
		ΔElev.	4.206m	0.061m		
		Dist.	8492.271m	0.006m		
CP1132	CP5124	**Az.**	40°23'39.7056"	0°00'00.1421"	1:1831692	1:1831692
		ΔHt.	3.413m	0.011m		
		ΔElev.	3.679m	0.060m		
		Dist.	7475.659m	0.004m		
CP1134	CP1133	**Az.**	339°15'56.1501"	0°00'00.1415"	1:1693320	1:1693320
		ΔHt.	-0.625m	0.006m		
		ΔElev.	-0.502m	0.060m		
		Dist.	3944.464m	0.002m		
CP1134	CP1135	**Az.**	163°18'57.9094"	0°00'00.2653"	1:674410	1:674410
		ΔHt.	0.137m	0.017m		
		ΔElev.	0.028m	0.061m		
		Dist.	3220.056m	0.005m		
CP1134	CP1022	**Az.**	92°51'26.0826"	0°00'00.1269"	1:1662519	1:1662519
		ΔHt.	1.952m	0.012m		
		ΔElev.	2.074m	0.061m		
		Dist.	6298.294m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1019	CP1020	**Az.**	130°38'01.6020"	0°00'00.1816"	1:1112956	1:1112956
		ΔHt.	0.711m	0.009m		
		ΔElev.	0.680m	0.060m		
		Dist.	4290.913m	0.004m		
CP1019	EDN 6 25	**Az.**	117°34'56.6842"	0°00'00.0550"	1:3428433	1:3428433
		ΔHt.	1.175m	0.012m		
		ΔElev.	1.190m	0.043m		
		Dist.	14918.075m	0.004m		
CP1019	CP1189	**Az.**	310°25'01.1030"	0°00'00.3154"	1:685173	1:685173
		ΔHt.	0.183m	0.010m		
		ΔElev.	0.204m	0.060m		
		Dist.	2884.154m	0.004m		
CP1121	CP1002	**Az.**	99°56'59.9932"	0°00'01.6662"	1:274941	1:274941
		ΔHt.	1.651m	0.047m		
		ΔElev.	1.696m	0.083m		
		Dist.	2657.584m	0.010m		
CP1011	C T2	**Az.**	46°28'49.4274"	0°00'00.0616"	1:4322530	1:4322530
		ΔHt.	-0.660m	0.023m		
		ΔElev.	-0.423m	0.043m		
		Dist.	16177.308m	0.004m		
CP1011	R 543	**Az.**	99°18'18.6121"	0°00'00.0420"	1:5153248	1:5153248
		ΔHt.	-0.655m	0.018m		
		ΔElev.	-0.468m	0.043m		
		Dist.	21731.918m	0.004m		
CP1011	CP1008	**Az.**	304°51'33.2166"	0°00'00.2770"	1:663169	1:663169
		ΔHt.	2.523m	0.014m		
		ΔElev.	2.515m	0.062m		
		Dist.	3123.262m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1011	CP1012	**Az.**	111°29'47.4966"	0°00'00.2605"	1:614733	1:614733
		ΔHt.	0.437m	0.013m		
		ΔElev.	0.460m	0.062m		
		Dist.	3883.102m	0.006m		
CP1011	CP1009	**Az.**	267°10'20.5958"	0°00'01.1215"	1:228562	1:228562
		ΔHt.	-0.266m	0.013m		
		ΔElev.	-0.277m	0.062m		
		Dist.	858.908m	0.004m		
CP1020	EDN 6 25	**Az.**	112°26'27.4969"	0°00'00.0548"	1:3363446	1:3363446
		ΔHt.	0.464m	0.010m		
		ΔElev.	0.510m	0.043m		
		Dist.	10781.637m	0.003m		
CP1017	R 543	**Az.**	68°11'57.8998"	0°00'00.0573"	1:2954597	1:2954597
		ΔHt.	-0.940m	0.015m		
		ΔElev.	-0.704m	0.043m		
		Dist.	13124.781m	0.004m		
CP1017	CP1018	**Az.**	105°35'32.8218"	0°00'00.5979"	1:362814	1:362814
		ΔHt.	0.509m	0.015m		
		ΔElev.	0.524m	0.062m		
		Dist.	2036.836m	0.006m		
CP1017	CP1189	**Az.**	192°20'57.2243"	0°00'00.2370"	1:852321	1:852321
		ΔHt.	-0.994m	0.009m		
		ΔElev.	-1.088m	0.060m		
		Dist.	3113.190m	0.004m		
CP1006	C T2	**Az.**	63°14'33.7636"	0°00'00.0815"	1:2652018	1:2652018
		ΔHt.	-0.722m	0.029m		
		ΔElev.	-0.464m	0.048m		
		Dist.	18188.255m	0.007m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1006	CP1005	**Az.**	0°14'23.6343"	0°00'01.4582"	1:162389	1:162389
		ΔHt.	1.201m	0.037m		
		ΔElev.	1.216m	0.073m		
		Dist.	1791.971m	0.011m		
CP1004	C T2	**Az.**	74°10'58.4185"	0°00'00.1101"	1:2144092	1:2144092
		ΔHt.	-1.971m	0.030m		
		ΔElev.	-1.715m	0.049m		
		Dist.	18450.470m	0.009m		
CP1004	CP1002	**Az.**	272°31'14.8051"	0°00'01.5499"	1:366346	1:366346
		ΔHt.	-1.053m	0.046m		
		ΔElev.	-1.099m	0.079m		
		Dist.	2965.717m	0.008m		
CP1004	CP1005	**Az.**	132°01'49.7955"	0°00'01.0714"	1:159661	1:159661
		ΔHt.	-0.049m	0.035m		
		ΔElev.	-0.035m	0.073m		
		Dist.	2045.634m	0.013m		
C T2	CP1005	**Az.**	248°34'06.3735"	0°00'00.1372"	1:1475103	1:1475103
		ΔHt.	1.922m	0.037m		
		ΔElev.	1.679m	0.054m		
		Dist.	17448.007m	0.012m		
R 543	CP1012	**Az.**	276°47'10.8663"	0°00'00.0623"	1:2971313	1:2971313
		ΔHt.	1.092m	0.017m		
		ΔElev.	0.928m	0.044m		
		Dist.	17955.124m	0.006m		
R 543	CP1018	**Az.**	242°07'11.5929"	0°00'00.0887"	1:1833403	1:1833403
		ΔHt.	1.449m	0.018m		
		ΔElev.	1.228m	0.044m		
		Dist.	11572.830m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
R 543	CP1013	**Az.**	271°42'19.8134"	0°00'00.0996"	1:1713911	1:1713911
		ΔHt.	1.338m	0.022m		
		ΔElev.	1.161m	0.046m		
		Dist.	16664.639m	0.010m		
EDN 6 25	CP1022	**Az.**	261°55'17.5591"	0°00'00.0782"	1:2859777	1:2859777
		ΔHt.	-0.797m	0.012m		
		ΔElev.	-1.056m	0.043m		
		Dist.	10328.735m	0.004m		
CP1008	CP1009	**Az.**	136°58'30.4577"	0°00'00.3070"	1:581771	1:581771
		ΔHt.	-2.789m	0.011m		
		ΔElev.	-2.792m	0.062m		
		Dist.	2499.334m	0.004m		
CP1135	CP1022	**Az.**	62°41'46.6934"	0°00'00.1849"	1:1312620	1:1312620
		ΔHt.	1.815m	0.019m		
		ΔElev.	2.046m	0.061m		
		Dist.	6039.041m	0.005m		
CP1012	CP1014	**Az.**	167°38'18.1436"	0°00'00.2572"	1:754096	1:754096
		ΔHt.	0.119m	0.015m		
		ΔElev.	0.048m	0.063m		
		Dist.	4435.530m	0.006m		
CP1012	CP1013	**Az.**	144°07'41.5530"	0°00'00.7489"	1:221117	1:221117
		ΔHt.	0.246m	0.019m		
		ΔElev.	0.233m	0.064m		
		Dist.	2004.182m	0.009m		
CP1012	CP5345	**Az.**	130°48'05.4101"	0°00'00.3824"	1:471714	1:471714
		ΔHt.	-0.424m	0.015m		
		ΔElev.	-0.430m	0.063m		
		Dist.	2765.963m	0.006m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1018	CP1189	**Az.**	226°30'29.0873"	0°00'00.2690"	1:606686	1:606686
		ΔHt.	-1.503m	0.015m		
		ΔElev.	-1.611m	0.061m		
		Dist.	3622.591m	0.006m		
CP1014	CP1015	**Az.**	123°12'06.1971"	0°00'00.9813"	1:105983	1:105983
		ΔHt.	-0.494m	0.026m		
		ΔElev.	-0.495m	0.065m		
		Dist.	1315.369m	0.012m		
CP1014	CP5345	**Az.**	24°22'46.3507"	0°00'00.4476"	1:463170	1:463170
		ΔHt.	-0.543m	0.017m		
		ΔElev.	-0.477m	0.064m		
		Dist.	2772.431m	0.006m		
CP1189	CP5125	**Az.**	125°40'38.0877"	0°00'00.1748"	1:838639	1:838639
		ΔHt.	1.552m	0.014m		
		ΔElev.	1.525m	0.061m		
		Dist.	6424.962m	0.008m		
CP1189	CP5124	**Az.**	48°21'22.0343"	0°00'00.4486"	1:585115	1:585115
		ΔHt.	0.934m	0.010m		
		ΔElev.	0.998m	0.060m		
		Dist.	2127.056m	0.004m		
CP1257	CP1255	**Az.**	305°28'50.0985"	0°00'00.0584"	1:3270866	1:3270866
		ΔHt.	0.144m	0.016m		
		ΔElev.	0.086m	0.059m		
		Dist.	11043.304m	0.003m		
CP1257	CP1256	**Az.**	229°04'57.5776"	0°00'00.1349"	1:1844758	1:1844758
		ΔHt.	0.466m	0.021m		
		ΔElev.	0.413m	0.061m		
		Dist.	7351.811m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1257	CP1261	**Az.**	293°43'23.0768"	0°00'00.1136"	1:1858913	1:1858913
		ΔHt.	0.121m	0.017m		
		ΔElev.	0.084m	0.059m		
		Dist.	6241.813m	0.003m		
CP1259	CP1255	**Az.**	237°17'09.1376"	0°00'00.1273"	1:2097198	1:2097198
		ΔHt.	-0.305m	0.016m		
		ΔElev.	-0.414m	0.058m		
		Dist.	10471.013m	0.005m		
CP1259	CP1258	**Az.**	270°13'18.8461"	0°00'00.2040"	1:914811	1:914811
		ΔHt.	-0.424m	0.011m		
		ΔElev.	-0.474m	0.058m		
		Dist.	4863.519m	0.005m		
CP1255	CP1254	**Az.**	233°20'53.1364"	0°00'00.2013"	1:1130221	1:1130221
		ΔHt.	0.635m	0.017m		
		ΔElev.	0.576m	0.059m		
		Dist.	6921.669m	0.006m		
CP1255	CP1261	**Az.**	139°53'58.8347"	0°00'00.1197"	1:1488151	1:1488151
		ΔHt.	-0.023m	0.016m		
		ΔElev.	-0.002m	0.059m		
		Dist.	5093.799m	0.003m		
CP1251	CP1064	**Az.**	243°45'16.0121"	0°00'00.1308"	1:1290699	1:1290699
		ΔHt.	-2.129m	0.006m		
		ΔElev.	-2.125m	0.059m		
		Dist.	3699.249m	0.003m		
CP1253	CP1256	**Az.**	75°04'57.0092"	0°00'00.2184"	1:1298134	1:1298134
		ΔHt.	-1.501m	0.019m		
		ΔElev.	-1.454m	0.061m		
		Dist.	6562.927m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1253	CP1261	**Az.**	34°24'43.3670"	0°00'00.1071"	1:2420390	1:2420390
		ΔHt.	-1.846m	0.013m		
		ΔElev.	-1.784m	0.059m		
		Dist.	10928.224m	0.005m		
MF 41	CP1041	**Az.**	278°28'16.0294"	0°00'00.2660"	1:801209	1:801209
		ΔHt.	-1.333m	0.011m		
		ΔElev.	-1.441m	0.043m		
		Dist.	4181.869m	0.005m		
MF 41	CP1038	**Az.**	321°25'18.9711"	0°00'00.2565"	1:1063756	1:1063756
		ΔHt.	-0.988m	0.010m		
		ΔElev.	-0.985m	0.043m		
		Dist.	4234.945m	0.004m		
MF 41	CP1043	**Az.**	262°23'25.7288"	0°00'00.1896"	1:928011	1:928011
		ΔHt.	-1.035m	0.012m		
		ΔElev.	-1.216m	0.043m		
		Dist.	5591.229m	0.006m		
MF 41	CP1037	**Az.**	339°23'22.8492"	0°00'00.1408"	1:1812131	1:1812131
		ΔHt.	-0.494m	0.012m		
		ΔElev.	-0.359m	0.043m		
		Dist.	8755.571m	0.005m		
MF 41	CP1039	**Az.**	308°46'12.6768"	0°00'00.3068"	1:873411	1:873411
		ΔHt.	-1.648m	0.010m		
		ΔElev.	-1.675m	0.043m		
		Dist.	3477.172m	0.004m		
CP1041	CP1042	**Az.**	271°41'06.5555"	0°00'00.5186"	1:402842	1:402842
		ΔHt.	0.200m	0.008m		
		ΔElev.	0.157m	0.060m		
		Dist.	1483.630m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1041	CP1039	**Az.**	42°22'16.7281"	0°00'00.3040"	1:556347	1:556347
		ΔHt.	-0.315m	0.008m		
		ΔElev.	-0.234m	0.060m		
		Dist.	2114.027m	0.004m		
CP1029	FLGPS 67	**Az.**	61°52'44.7626"	0°00'00.0529"	1:4083339	1:4083339
		ΔHt.	-1.345m	0.013m		
		ΔElev.	-0.854m	0.041m		
		Dist.	12997.309m	0.003m		
CP1029	CP1248	**Az.**	140°34'25.7813"	0°00'00.1006"	1:1929210	1:1929210
		ΔHt.	-0.725m	0.006m		
		ΔElev.	-0.789m	0.058m		
		Dist.	5236.554m	0.003m		
CP1029	CP1030	**Az.**	91°22'13.7902"	0°00'00.2378"	1:1176497	1:1176497
		ΔHt.	-0.881m	0.007m		
		ΔElev.	-0.810m	0.058m		
		Dist.	3318.801m	0.003m		
CP1029	H 547	**Az.**	3°46'52.7760"	0°00'00.0495"	1:4445399	1:4445399
		ΔHt.	-0.194m	0.013m		
		ΔElev.	0.317m	0.041m		
		Dist.	14015.237m	0.003m		
CP1029	CP1026	**Az.**	310°41'45.2373"	0°00'00.1297"	1:1541583	1:1541583
		ΔHt.	-0.618m	0.013m		
		ΔElev.	-0.570m	0.059m		
		Dist.	7311.599m	0.005m		
CP1029	CP1028	**Az.**	277°18'04.1208"	0°00'00.1720"	1:902020	1:902020
		ΔHt.	-0.437m	0.006m		
		ΔElev.	-0.480m	0.058m		
		Dist.	2567.696m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1029	CP5127	**Az.**	91°51'27.4390"	0°00'00.5228"	1:568164	1:568164
		ΔHt.	0.054m	0.008m		
		ΔElev.	0.089m	0.058m		
		Dist.	1708.467m	0.003m		
FLGPS 67	CP1033	**Az.**	179°14'17.9439"	0°00'00.2191"	1:1061269	1:1061269
		ΔHt.	0.227m	0.021m		
		ΔElev.	-0.013m	0.046m		
		Dist.	6664.593m	0.006m		
FLGPS 67	CP1030	**Az.**	232°44'59.9339"	0°00'00.0877"	1:2653152	1:2653152
		ΔHt.	0.465m	0.013m		
		ΔElev.	0.044m	0.041m		
		Dist.	10239.711m	0.004m		
FLGPS 67	CP1034	**Az.**	149°13'52.7178"	0°00'00.1946"	1:902026	1:902026
		ΔHt.	0.108m	0.023m		
		ΔElev.	-0.018m	0.047m		
		Dist.	7052.284m	0.008m		
FLGPS 67	CP1032	**Az.**	202°29'58.5717"	0°00'00.2254"	1:839954	1:839954
		ΔHt.	0.505m	0.022m		
		ΔElev.	0.237m	0.046m		
		Dist.	6220.067m	0.007m		
FLGPS 67	CP1031	**Az.**	220°01'31.6501"	0°00'00.1562"	1:1321641	1:1321641
		ΔHt.	0.268m	0.015m		
		ΔElev.	-0.053m	0.043m		
		Dist.	7352.332m	0.006m		
FLGPS 67	CP1035	**Az.**	144°43'52.6840"	0°00'00.1253"	1:1389448	1:1389448
		ΔHt.	-0.037m	0.019m		
		ΔElev.	-0.158m	0.044m		
		Dist.	8280.001m	0.006m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1033	CP1246	**Az.**	194°29'30.8064"	0°00'00.4249"	1:530430	1:530430
		ΔHt.	-0.365m	0.024m		
		ΔElev.	-0.531m	0.065m		
		Dist.	4091.001m	0.008m		
CP1033	CP1034	**Az.**	80°15'18.6136"	0°00'00.4127"	1:416678	1:416678
		ΔHt.	-0.119m	0.025m		
		ΔElev.	-0.005m	0.066m		
		Dist.	3570.689m	0.009m		
CP1033	CP1032	**Az.**	290°23'04.9021"	0°00'00.6228"	1:364833	1:364833
		ΔHt.	0.278m	0.023m		
		ΔElev.	0.250m	0.065m		
		Dist.	2633.807m	0.007m		
CP1033	CP1035	**Az.**	91°10'30.9039"	0°00'00.2852"	1:564437	1:564437
		ΔHt.	-0.264m	0.023m		
		ΔElev.	-0.144m	0.064m		
		Dist.	4693.360m	0.008m		
CP1248	CP1246	**Az.**	93°37'21.4799"	0°00'00.2081"	1:1009433	1:1009433
		ΔHt.	-0.758m	0.022m		
		ΔElev.	-0.610m	0.062m		
		Dist.	7226.244m	0.007m		
CP1248	CP1030	**Az.**	359°54'08.7408"	0°00'00.1399"	1:1059007	1:1059007
		ΔHt.	-0.155m	0.007m		
		ΔElev.	-0.021m	0.058m		
		Dist.	3965.573m	0.004m		
CP1248	CP1239	**Az.**	217°53'30.6656"	0°00'00.1299"	1:1873311	1:1873311
		ΔHt.	-0.698m	0.006m		
		ΔElev.	-0.856m	0.058m		
		Dist.	4214.907m	0.002m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1248	CP1032	**Az.**	52°30'39.9509"	0°00'00.1855"	1:993054	1:993054
		ΔHt.	-0.115m	0.022m		
		ΔElev.	0.172m	0.062m		
		Dist.	7263.660m	0.007m		
CP1248	CP1028	**Az.**	306°40'38.9701"	0°00'00.0864"	1:2111176	1:2111176
		ΔHt.	0.288m	0.008m		
		ΔElev.	0.309m	0.058m		
		Dist.	7320.822m	0.003m		
CP1248	CP1031	**Az.**	36°58'42.2911"	0°00'00.1826"	1:1077127	1:1077127
		ΔHt.	-0.352m	0.013m		
		ΔElev.	-0.118m	0.059m		
		Dist.	5677.702m	0.005m		
CP1248	CP5128	**Az.**	72°38'43.7992"	0°00'00.2843"	1:542630	1:542630
		ΔHt.	-0.176m	0.035m		
		ΔElev.	-0.013m	0.068m		
		Dist.	5168.049m	0.010m		
CP1248	CP5127	**Az.**	337°56'19.2296"	0°00'00.1402"	1:992356	1:992356
		ΔHt.	0.779m	0.008m		
		ΔElev.	0.878m	0.058m		
		Dist.	4305.203m	0.004m		
CP1246	CP1032	**Az.**	343°29'38.7116"	0°00'00.3235"	1:634039	1:634039
		ΔHt.	0.643m	0.026m		
		ΔElev.	0.782m	0.065m		
		Dist.	5087.799m	0.008m		
CP1246	CP1036	**Az.**	101°38'22.6553"	0°00'00.2979"	1:668689	1:668689
		ΔHt.	0.313m	0.025m		
		ΔElev.	0.410m	0.063m		
		Dist.	5607.206m	0.008m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1246	CP1031	**Az.**	322°46'48.1990"	0°00'00.2648"	1:757528	1:757528
		ΔHt.	0.406m	0.024m		
		ΔElev.	0.492m	0.063m		
		Dist.	6271.923m	0.008m		
CP1246	CP1195	**Az.**	237°17'50.9311"	0°00'00.2638"	1:833417	1:833417
		ΔHt.	0.965m	0.023m		
		ΔElev.	0.737m	0.062m		
		Dist.	6273.378m	0.008m		
CP1246	CP5128	**Az.**	311°16'31.2330"	0°00'00.7211"	1:401196	1:401196
		ΔHt.	0.581m	0.038m		
		ΔElev.	0.597m	0.071m		
		Dist.	3030.914m	0.008m		
CP1042	CP1238	**Az.**	307°36'28.9158"	0°00'00.0646"	1:2696775	1:2696775
		ΔHt.	0.921m	0.009m		
		ΔElev.	0.880m	0.059m		
		Dist.	9556.069m	0.004m		
CP1042	CP1043	**Az.**	176°49'06.3524"	0°00'00.3700"	1:703131	1:703131
		ΔHt.	0.097m	0.006m		
		ΔElev.	0.068m	0.060m		
		Dist.	1402.671m	0.002m		
CP1042	CP1044	**Az.**	234°49'23.0522"	0°00'00.1843"	1:1188607	1:1188607
		ΔHt.	-0.186m	0.006m		
		ΔElev.	-0.280m	0.060m		
		Dist.	2643.998m	0.002m		
CP1042	CP1040	**Az.**	43°21'53.6346"	0°00'00.3077"	1:561668	1:561668
		ΔHt.	-0.045m	0.008m		
		ΔElev.	0.034m	0.060m		
		Dist.	2104.800m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1042	CP1036	**Az.**	336°51'17.6386"	0°00'00.0760"	1:3167040	1:3167040
		ΔHt.	1.093m	0.009m		
		ΔElev.	1.248m	0.060m		
		Dist.	9926.589m	0.003m		
CP1042	CP1045	**Az.**	252°06'59.5761"	0°00'00.1222"	1:1824705	1:1824705
		ΔHt.	0.903m	0.007m		
		ΔElev.	0.756m	0.060m		
		Dist.	4452.427m	0.002m		
CP1042	CP3000	**Az.**	304°26'25.2134"	0°00'00.0923"	1:2042955	1:2042955
		ΔHt.	0.085m	0.011m		
		ΔElev.	0.028m	0.060m		
		Dist.	8219.045m	0.004m		
CP1042	CP5130	**Az.**	305°23'34.0421"	0°00'00.1166"	1:1609161	1:1609161
		ΔHt.	0.697m	0.008m		
		ΔElev.	0.659m	0.060m		
		Dist.	4943.135m	0.003m		
CP1238	CP1046	**Az.**	184°16'28.8534"	0°00'00.1523"	1:1583017	1:1583017
		ΔHt.	-1.090m	0.013m		
		ΔElev.	-1.291m	0.060m		
		Dist.	7201.161m	0.005m		
CP1238	CP1044	**Az.**	143°37'58.0437"	0°00'00.0800"	1:2353152	1:2353152
		ΔHt.	-1.107m	0.010m		
		ΔElev.	-1.160m	0.059m		
		Dist.	9129.822m	0.004m		
CP1238	CP1047	**Az.**	202°28'35.7696"	0°00'00.1390"	1:1591260	1:1591260
		ΔHt.	-1.136m	0.012m		
		ΔElev.	-1.395m	0.059m		
		Dist.	7877.829m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1238	CP1249	**Az.**	238°53'40.4450"	0°00'00.3067"	1:960055	1:960055
		ΔHt.	0.300m	0.009m		
		ΔElev.	0.184m	0.059m		
		Dist.	3332.141m	0.003m		
CP1238	CP1036	**Az.**	48°01'42.2399"	0°00'00.1579"	1:1396164	1:1396164
		ΔHt.	0.172m	0.009m		
		ΔElev.	0.369m	0.059m		
		Dist.	4931.739m	0.004m		
CP1238	CP1195	**Az.**	278°20'27.5016"	0°00'00.1409"	1:1598199	1:1598199
		ΔHt.	0.824m	0.011m		
		ΔElev.	0.696m	0.059m		
		Dist.	7180.513m	0.004m		
CP1238	CP1045	**Az.**	155°07'18.9037"	0°00'00.0906"	1:2140926	1:2140926
		ΔHt.	-0.018m	0.010m		
		ΔElev.	-0.123m	0.059m		
		Dist.	7933.068m	0.004m		
CP1238	CP3000	**Az.**	146°10'24.1412"	0°00'00.5088"	1:345803	1:345803
		ΔHt.	-0.835m	0.011m		
		ΔElev.	-0.851m	0.060m		
		Dist.	1423.953m	0.004m		
CP1046	CP1045	**Az.**	90°13'51.9924"	0°00'00.2152"	1:778456	1:778456
		ΔHt.	1.072m	0.011m		
		ΔElev.	1.168m	0.061m		
		Dist.	3874.145m	0.005m		
CP1046	CP3000	**Az.**	12°29'40.7086"	0°00'00.1890"	1:1239016	1:1239016
		ΔHt.	0.255m	0.014m		
		ΔElev.	0.440m	0.061m		
		Dist.	6143.778m	0.005m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1196	CP1235	**Az.**	64°43'54.9319"	0°00'00.1779"	1:1425292	1:1425292
		ΔHt.	0.636m	0.016m		
		ΔElev.	0.840m	0.059m		
		Dist.	7633.244m	0.005m		
CP1030	CP1031	**Az.**	80°32'26.8585"	0°00'00.3243"	1:834921	1:834921
		ΔHt.	-0.196m	0.012m		
		ΔElev.	-0.097m	0.060m		
		Dist.	3469.141m	0.004m		
CP1030	CP5127	**Az.**	270°52'07.6195"	0°00'00.6101"	1:513288	1:513288
		ΔHt.	0.934m	0.008m		
		ΔElev.	0.899m	0.059m		
		Dist.	1610.461m	0.003m		
CP1034	CP1035	**Az.**	120°51'42.2450"	0°00'00.8088"	1:165956	1:165956
		ΔHt.	-0.145m	0.021m		
		ΔElev.	-0.140m	0.065m		
		Dist.	1366.493m	0.008m		
CP1038	CP1037	**Az.**	354°49'35.2589"	0°00'00.1482"	1:1488260	1:1488260
		ΔHt.	0.495m	0.008m		
		ΔElev.	0.625m	0.060m		
		Dist.	4904.361m	0.003m		
CP1038	CP1040	**Az.**	233°48'07.7905"	0°00'00.3083"	1:553529	1:553529
		ΔHt.	-0.189m	0.007m		
		ΔElev.	-0.266m	0.060m		
		Dist.	1898.722m	0.003m		
CP1038	B 548	**Az.**	6°50'30.4817"	0°00'00.0932"	1:2157181	1:2157181
		ΔHt.	-0.109m	0.011m		
		ΔElev.	0.220m	0.043m		
		Dist.	9002.402m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1038	CP1039	**Az.**	183°31'56.7693"	0°00'00.3935"	1:513922	1:513922
		ΔHt.	-0.659m	0.006m		
		ΔElev.	-0.690m	0.060m		
		Dist.	1135.481m	0.002m		
CP1038	CP5122	**Az.**	54°28'31.3705"	0°00'00.1619"	1:1665195	1:1665195
		ΔHt.	-1.133m	0.015m		
		ΔElev.	-0.714m	0.062m		
		Dist.	8681.467m	0.005m		
CP1038	CP5123	**Az.**	89°50'17.5175"	0°00'00.3861"	1:658583	1:658583
		ΔHt.	-0.795m	0.046m		
		ΔElev.	-0.539m	0.075m		
		Dist.	6823.888m	0.010m		
CP1038	CP5121	**Az.**	29°28'05.1778"	0°00'00.3093"	1:1063278	1:1063278
		ΔHt.	-2.872m	0.025m		
		ΔElev.	-2.160m	0.065m		
		Dist.	14491.005m	0.014m		
CP1043	CP1044	**Az.**	266°51'48.3170"	0°00'00.2053"	1:798713	1:798713
		ΔHt.	-0.283m	0.006m		
		ΔElev.	-0.349m	0.060m		
		Dist.	2242.352m	0.003m		
CP1239	CP1235	**Az.**	239°35'19.3801"	0°00'00.1172"	1:1938176	1:1938176
		ΔHt.	-0.748m	0.014m		
		ΔElev.	-1.015m	0.058m		
		Dist.	8668.622m	0.004m		
CP1239	CP1194	**Az.**	285°19'06.9629"	0°00'00.0905"	1:1955633	1:1955633
		ΔHt.	-1.438m	0.010m		
		ΔElev.	-1.525m	0.058m		
		Dist.	7569.836m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1239	K 413	**Az.**	163°03'52.9461"	0°00'00.0865"	1:2161219	1:2161219
		ΔHt.	-0.844m	0.015m		
		ΔElev.	-1.001m	0.041m		
		Dist.	7623.594m	0.004m		
CP1239	CP1195	**Az.**	96°34'46.1821"	0°00'00.1647"	1:1455341	1:1455341
		ΔHt.	0.905m	0.007m		
		ΔElev.	0.983m	0.058m		
		Dist.	4553.550m	0.003m		
CP1048	CP1047	**Az.**	90°54'23.3852"	0°00'00.2514"	1:1065483	1:1065483
		ΔHt.	-1.004m	0.007m		
		ΔElev.	-0.937m	0.059m		
		Dist.	3180.278m	0.003m		
CP1048	CP1049	**Az.**	280°56'55.9315"	0°00'00.1302"	1:1277797	1:1277797
		ΔHt.	2.086m	0.007m		
		ΔElev.	2.035m	0.058m		
		Dist.	3296.766m	0.003m		
CP1048	CP1249	**Az.**	31°12'07.5128"	0°00'00.1870"	1:1255809	1:1255809
		ΔHt.	0.432m	0.013m		
		ΔElev.	0.641m	0.059m		
		Dist.	6439.183m	0.005m		
CP1048	K 413	**Az.**	294°56'11.7008"	0°00'00.1555"	1:1248831	1:1248831
		ΔHt.	-0.792m	0.012m		
		ΔElev.	-0.830m	0.041m		
		Dist.	3554.106m	0.003m		
CP1048	CP1195	**Az.**	353°40'18.3802"	0°00'00.0912"	1:1772411	1:1772411
		ΔHt.	0.957m	0.010m		
		ΔElev.	1.154m	0.058m		
		Dist.	8319.406m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1048	CP5120	**Az.**	214°49'35.8915"	0°00'00.1978"	1:1548758	1:1548758
		ΔHt.	-1.411m	0.007m		
		ΔElev.	-1.495m	0.059m		
		Dist.	3046.483m	0.002m		
CP1048	CP5129	**Az.**	301°50'26.5902"	0°00'00.1361"	1:1005414	1:1005414
		ΔHt.	-0.547m	0.007m		
		ΔElev.	-0.563m	0.059m		
		Dist.	2833.210m	0.003m		
CP1037	CP1040	**Az.**	190°17'05.3370"	0°00'00.1349"	1:1510592	1:1510592
		ΔHt.	-0.684m	0.010m		
		ΔElev.	-0.891m	0.060m		
		Dist.	6103.831m	0.004m		
CP1037	B 548	**Az.**	20°29'07.4338"	0°00'00.2044"	1:1201330	1:1201330
		ΔHt.	-0.604m	0.011m		
		ΔElev.	-0.406m	0.043m		
		Dist.	4327.641m	0.004m		
CP1037	CP1036	**Az.**	283°54'05.6588"	0°00'00.1009"	1:1874483	1:1874483
		ΔHt.	0.455m	0.009m		
		ΔElev.	0.323m	0.060m		
		Dist.	6629.443m	0.004m		
CP1044	CP1045	**Az.**	274°17'10.0675"	0°00'00.2644"	1:655516	1:655516
		ΔHt.	1.088m	0.007m		
		ΔElev.	1.037m	0.060m		
		Dist.	2082.006m	0.003m		
CP1049	K 413	**Az.**	0°54'12.9986"	0°00'00.6758"	1:321840	1:321840
		ΔHt.	-2.879m	0.012m		
		ΔElev.	-2.865m	0.041m		
		Dist.	872.412m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1049	CP5120	**Az.**	154°24'15.6759"	0°00'00.1684"	1:1103533	1:1103533
		ΔHt.	-3.497m	0.008m		
		ΔElev.	-3.531m	0.059m		
		Dist.	3466.805m	0.003m		
CP1049	CP5129	**Az.**	43°40'56.7283"	0°00'00.5539"	1:510490	1:510490
		ΔHt.	-2.633m	0.008m		
		ΔElev.	-2.598m	0.059m		
		Dist.	1201.272m	0.002m		
CP1032	CP1031	**Az.**	272°49'45.5960"	0°00'00.7539"	1:331803	1:331803
		ΔHt.	-0.237m	0.021m		
		ΔElev.	-0.290m	0.063m		
		Dist.	2351.101m	0.007m		
CP1032	CP5128	**Az.**	196°07'13.3589"	0°00'00.4983"	1:372682	1:372682
		ΔHt.	-0.062m	0.034m		
		ΔElev.	-0.185m	0.071m		
		Dist.	2996.626m	0.008m		
CP1040	CP1036	**Az.**	324°52'08.5681"	0°00'00.0967"	1:2487841	1:2487841
		ΔHt.	1.138m	0.010m		
		ΔElev.	1.214m	0.060m		
		Dist.	9290.399m	0.004m		
CP1040	CP1039	**Az.**	90°27'45.6655"	0°00'00.4454"	1:459757	1:459757
		ΔHt.	-0.470m	0.007m		
		ΔElev.	-0.425m	0.060m		
		Dist.	1462.324m	0.003m		
CP1249	CP1195	**Az.**	303°00'25.0422"	0°00'00.2122"	1:827540	1:827540
		ΔHt.	0.524m	0.012m		
		ΔElev.	0.513m	0.059m		
		Dist.	5070.498m	0.006m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
B 548	CP1035	**Az.**	288°10'55.4903"	0°00'00.1114"	1:1260435	1:1260435
		ΔHt.	0.847m	0.019m		
		ΔElev.	0.706m	0.044m		
		Dist.	8126.649m	0.006m		
B 548	CP5122	**Az.**	123°01'04.2410"	0°00'00.1760"	1:1001705	1:1001705
		ΔHt.	-1.024m	0.015m		
		ΔElev.	-0.934m	0.045m		
		Dist.	7147.015m	0.007m		
B 548	CP5121	**Az.**	58°44'03.1421"	0°00'00.7120"	1:919111	1:919111
		ΔHt.	-2.763m	0.025m		
		ΔElev.	-2.380m	0.049m		
		Dist.	7085.608m	0.008m		
CP1036	CP1035	**Az.**	2°35'26.9538"	0°00'00.2865"	1:919184	1:919184
		ΔHt.	-0.212m	0.019m		
		ΔElev.	-0.023m	0.061m		
		Dist.	5001.334m	0.005m		
C 547	CP1025	**Az.**	222°10'47.1547"	0°00'00.1146"	1:2026024	1:2026024
		ΔHt.	1.038m	0.019m		
		ΔElev.	0.586m	0.044m		
		Dist.	10094.672m	0.005m		
C 547	CP1024	**Az.**	252°16'19.3268"	0°00'00.1412"	1:1971352	1:1971352
		ΔHt.	0.556m	0.019m		
		ΔElev.	0.217m	0.045m		
		Dist.	10176.177m	0.005m		
CP1025	CP1191	**Az.**	245°44'29.2513"	0°00'00.2577"	1:867101	1:867101
		ΔHt.	-2.737m	0.020m		
		ΔElev.	-2.928m	0.061m		
		Dist.	5279.022m	0.006m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1025	CP1024	**Az.**	326°20'16.8461"	0°00'00.2342"	1:718748	1:718748
		ΔHt.	-0.482m	0.019m		
		ΔElev.	-0.369m	0.063m		
		Dist.	5262.833m	0.007m		
CP1025	CP1026	**Az.**	134°07'12.8973"	0°00'00.1388"	1:1329633	1:1329633
		ΔHt.	-1.150m	0.023m		
		ΔElev.	-1.261m	0.061m		
		Dist.	9331.808m	0.007m		
CP1025	CP1023	**Az.**	296°45'57.9902"	0°00'00.1340"	1:1573053	1:1573053
		ΔHt.	-0.658m	0.018m		
		ΔElev.	-0.675m	0.061m		
		Dist.	8909.620m	0.006m		
CP1194	CP1027	**Az.**	11°16'20.9295"	0°00'00.1431"	1:1885956	1:1885956
		ΔHt.	2.192m	0.014m		
		ΔElev.	2.503m	0.059m		
		Dist.	8612.733m	0.005m		
CP1194	CP1026	**Az.**	5°42'44.8834"	0°00'00.0914"	1:2818895	1:2818895
		ΔHt.	2.243m	0.013m		
		ΔElev.	2.600m	0.059m		
		Dist.	10191.106m	0.004m		
CP1194	CP1028	**Az.**	35°08'41.8003"	0°00'00.1232"	1:1934949	1:1934949
		ΔHt.	2.424m	0.010m		
		ΔElev.	2.690m	0.058m		
		Dist.	6971.865m	0.004m		
CP1194	CP1206	**Az.**	333°12'53.8253"	0°00'00.1265"	1:1586413	1:1586413
		ΔHt.	0.673m	0.017m		
		ΔElev.	0.851m	0.059m		
		Dist.	9063.290m	0.006m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1245	CP1136	**Az.**	327°04'27.2569"	0°00'00.1858"	1:1105054	1:1105054
		ΔHt.	1.716m	0.014m		
		ΔElev.	1.839m	0.060m		
		Dist.	5812.839m	0.005m		
CP1245	CP1191	**Az.**	72°19'20.0211"	0°00'00.1661"	1:1184051	1:1184051
		ΔHt.	1.247m	0.012m		
		ΔElev.	1.416m	0.060m		
		Dist.	4963.915m	0.004m		
CP1245	CP1023	**Az.**	11°38'07.7266"	0°00'00.1271"	1:1431276	1:1431276
		ΔHt.	3.326m	0.014m		
		ΔElev.	3.669m	0.060m		
		Dist.	7847.590m	0.005m		
CP1136	CP1023	**Az.**	59°21'45.2207"	0°00'00.1882"	1:1307097	1:1307097
		ΔHt.	1.610m	0.013m		
		ΔElev.	1.829m	0.060m		
		Dist.	5510.878m	0.004m		
CP1191	CP1206	**Az.**	134°49'22.0159"	0°00'00.1175"	1:1323222	1:1323222
		ΔHt.	0.017m	0.019m		
		ΔElev.	-0.082m	0.061m		
		Dist.	9046.597m	0.007m		
CP1027	CP1026	**Az.**	338°27'03.1350"	0°00'00.6648"	1:394096	1:394096
		ΔHt.	0.051m	0.013m		
		ΔElev.	0.097m	0.060m		
		Dist.	1821.307m	0.005m		
CP1027	CP1028	**Az.**	139°41'33.5709"	0°00'00.2904"	1:717513	1:717513
		ΔHt.	0.232m	0.012m		
		ΔElev.	0.187m	0.059m		
		Dist.	3600.920m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1024	CP1023	**Az.**	265°48'34.6490"	0°00'00.2995"	1:936857	1:936857
		ΔHt.	-0.176m	0.021m		
		ΔElev.	-0.306m	0.062m		
		Dist.	5051.245m	0.005m		
H 547	CP1026	**Az.**	215°03'42.6068"	0°00'00.0920"	1:2418415	1:2418415
		ΔHt.	-0.424m	0.016m		
		ΔElev.	-0.887m	0.042m		
		Dist.	11260.103m	0.005m		
CP1026	CP1206	**Az.**	248°06'16.6781"	0°00'00.2261"	1:842907	1:842907
		ΔHt.	-1.570m	0.020m		
		ΔElev.	-1.749m	0.060m		
		Dist.	5495.264m	0.007m		
CP1206	CP3001	**Az.**	183°47'21.3126"	0°00'00.2517"	1:935346	1:935346
		ΔHt.	-1.605m	0.022m		
		ΔElev.	-1.851m	0.062m		
		Dist.	7195.962m	0.008m		
CP1039	CP5122	**Az.**	49°06'52.7327"	0°00'00.1475"	1:1701028	1:1701028
		ΔHt.	-0.474m	0.016m		
		ΔElev.	-0.024m	0.062m		
		Dist.	9438.202m	0.006m		
CP1039	CP5123	**Az.**	80°30'29.0469"	0°00'00.3736"	1:666685	1:666685
		ΔHt.	-0.136m	0.046m		
		ΔElev.	0.151m	0.076m		
		Dist.	6989.510m	0.010m		
CP1045	CP3000	**Az.**	337°04'50.6007"	0°00'00.1143"	1:1592127	1:1592127
		ΔHt.	-0.817m	0.011m		
		ΔElev.	-0.728m	0.060m		
		Dist.	6530.203m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1045	CP5130	**Az.**	2°47'28.1560"	0°00'00.1385"	1:1395941	1:1395941
		ΔHt.	-0.206m	0.008m		
		ΔElev.	-0.098m	0.060m		
		Dist.	4235.311m	0.003m		
CP3000	CP5130	**Az.**	122°58'23.5167"	0°00'00.2252"	1:859583	1:859583
		ΔHt.	0.612m	0.011m		
		ΔElev.	0.631m	0.060m		
		Dist.	3277.623m	0.004m		
CP3010	CP5340	**Az.**	89°58'51.0982"	0°00'00.1239"	1:2373972	1:2373972
		ΔHt.	-1.715m	0.021m		
		ΔElev.	-1.548m	0.063m		
		Dist.	13700.140m	0.006m		
CP3010	CP5327	**Az.**	144°57'50.6875"	0°00'00.0895"	1:1985854	1:1985854
		ΔHt.	-1.014m	0.016m		
		ΔElev.	-0.953m	0.063m		
		Dist.	11773.347m	0.006m		
CP3010	CP5317	**Az.**	156°57'41.9972"	0°00'00.0523"	1:2910935	1:2910935
		ΔHt.	-1.170m	0.023m		
		ΔElev.	-1.105m	0.065m		
		Dist.	24542.841m	0.008m		
CP3010	CP5328	**Az.**	198°07'24.3842"	0°00'00.0840"	1:2034584	1:2034584
		ΔHt.	0.585m	0.016m		
		ΔElev.	0.540m	0.062m		
		Dist.	11983.956m	0.006m		
CP5116	CP5112	**Az.**	335°53'24.6685"	0°00'00.7782"	1:184059	1:184059
		ΔHt.	0.764m	0.016m		
		ΔElev.	0.777m	0.059m		
		Dist.	1759.395m	0.010m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5116	CP5119	**Az.**	63°12'48.4506"	0°00'00.3258"	1:1053725	1:1053725
		ΔHt.	-0.993m	0.007m		
		ΔElev.	-0.943m	0.058m		
		Dist.	2753.433m	0.003m		
CP5102	CP5101	**Az.**	18°53'28.8048"	0°00'01.0967"	1:256217	1:256217
		ΔHt.	-0.390m	0.014m		
		ΔElev.	-0.378m	0.059m		
		Dist.	924.580m	0.004m		
CP5101	CP5103	**Az.**	10°50'18.1170"	0°00'01.3066"	1:214455	1:214455
		ΔHt.	0.234m	0.009m		
		ΔElev.	0.242m	0.060m		
		Dist.	622.825m	0.003m		
CP5101	CP5105	**Az.**	74°27'26.1139"	0°00'00.6308"	1:336930	1:336930
		ΔHt.	1.030m	0.011m		
		ΔElev.	1.050m	0.060m		
		Dist.	1431.842m	0.004m		
CP5103	CP5107	**Az.**	1°48'59.8158"	0°00'00.9500"	1:264247	1:264247
		ΔHt.	0.305m	0.008m		
		ΔElev.	0.314m	0.060m		
		Dist.	746.464m	0.003m		
CP5103	CP5105	**Az.**	100°14'25.4818"	0°00'00.5500"	1:294168	1:294168
		ΔHt.	0.796m	0.010m		
		ΔElev.	0.808m	0.060m		
		Dist.	1282.798m	0.004m		
CP5107	CP5105	**Az.**	128°10'56.8617"	0°00'00.4275"	1:350716	1:350716
		ΔHt.	0.490m	0.010m		
		ΔElev.	0.494m	0.060m		
		Dist.	1575.859m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5107	CP5106	**Az.**	270°50'55.2540"	0°00'02.5491"	1:91969	1:91969
		ΔHt.	0.852m	0.012m		
		ΔElev.	0.848m	0.060m		
		Dist.	355.784m	0.004m		
CP5107	CP5114A	**Az.**	350°53'53.6063"	0°00'01.3318"	1:132019	1:132019
		ΔHt.	1.403m	0.012m		
		ΔElev.	1.410m	0.060m		
		Dist.	628.158m	0.005m		
CP5107	CP5110	**Az.**	113°49'41.6770"	0°00'02.2533"	1:98139	1:98139
		ΔHt.	-0.155m	0.015m		
		ΔElev.	-0.152m	0.062m		
		Dist.	473.047m	0.005m		
CP5105	CP5106	**Az.**	301°33'59.9495"	0°00'00.4145"	1:420936	1:420936
		ΔHt.	0.362m	0.010m		
		ΔElev.	0.354m	0.060m		
		Dist.	1871.231m	0.004m		
CP5105	CP5114A	**Az.**	320°00'04.1491"	0°00'00.3894"	1:430896	1:430896
		ΔHt.	0.913m	0.011m		
		ΔElev.	0.916m	0.060m		
		Dist.	2081.469m	0.005m		
CP5106	CP5114A	**Az.**	22°37'44.8385"	0°00'01.2356"	1:170767	1:170767
		ΔHt.	0.552m	0.010m		
		ΔElev.	0.562m	0.060m		
		Dist.	666.279m	0.004m		
CP5106	CP5110	**Az.**	103°59'02.8424"	0°00'01.5092"	1:156849	1:156849
		ΔHt.	-1.007m	0.016m		
		ΔElev.	-1.000m	0.062m		
		Dist.	812.558m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5114A	CP5114B	**Az.**	85°37'01.9900"	0°00'01.6185"	1:170315	1:170315
		ΔHt.	-1.238m	0.013m		
		ΔElev.	-1.230m	0.060m		
		Dist.	601.245m	0.004m		
CP5114A	CP5117	**Az.**	358°32'56.8850"	0°00'00.9724"	1:174449	1:174449
		ΔHt.	-0.595m	0.013m		
		ΔElev.	-0.585m	0.059m		
		Dist.	812.743m	0.005m		
CP5114B	CP5117	**Az.**	321°01'57.5188"	0°00'00.8800"	1:235938	1:235938
		ΔHt.	0.643m	0.013m		
		ΔElev.	0.645m	0.060m		
		Dist.	985.930m	0.004m		
CP5114B	CP5115	**Az.**	95°17'19.9797"	0°00'01.6077"	1:189250	1:189250
		ΔHt.	0.200m	0.016m		
		ΔElev.	0.209m	0.062m		
		Dist.	799.343m	0.004m		
CP5117	CP5108	**Az.**	0°59'34.7810"	0°00'00.4769"	1:427793	1:427793
		ΔHt.	-0.407m	0.008m		
		ΔElev.	-0.390m	0.059m		
		Dist.	1193.797m	0.003m		
CP5117	CP5109	**Az.**	327°03'35.6924"	0°00'00.6881"	1:282392	1:282392
		ΔHt.	0.293m	0.008m		
		ΔElev.	0.298m	0.059m		
		Dist.	838.237m	0.003m		
CP5117	CP5115	**Az.**	120°40'56.6811"	0°00'00.7909"	1:325497	1:325497
		ΔHt.	-0.443m	0.018m		
		ΔElev.	-0.436m	0.061m		
		Dist.	1646.506m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5108	CP5109	**Az.**	224°11'28.7239"	0°00'00.8944"	1:249294	1:249294
		ΔHt.	0.701m	0.008m		
		ΔElev.	0.688m	0.059m		
		Dist.	683.576m	0.003m		
CP5119	CP5113	**Az.**	227°09'49.8322"	0°00'00.4406"	1:645723	1:645723
		ΔHt.	1.332m	0.011m		
		ΔElev.	1.285m	0.058m		
		Dist.	2439.674m	0.004m		
CP5119	CP5111	**Az.**	171°29'12.8450"	0°00'00.2942"	1:589019	1:589019
		ΔHt.	0.929m	0.012m		
		ΔElev.	0.894m	0.058m		
		Dist.	2845.047m	0.005m		
CP5118	CP5113	**Az.**	335°28'40.2928"	0°00'00.2344"	1:680422	1:680422
		ΔHt.	0.007m	0.012m		
		ΔElev.	0.029m	0.059m		
		Dist.	3635.286m	0.005m		
CP5118	CP5111	**Az.**	18°02'54.8908"	0°00'00.3414"	1:596629	1:596629
		ΔHt.	-0.397m	0.012m		
		ΔElev.	-0.362m	0.059m		
		Dist.	2263.876m	0.004m		
CP5134	CP5132	**Az.**	322°57'33.5099"	0°00'00.5856"	1:341499	1:341499
		ΔHt.	-0.832m	0.008m		
		ΔElev.	-0.835m	0.059m		
		Dist.	825.427m	0.002m		
CP5134	CP5131	**Az.**	25°01'33.1498"	0°00'01.0512"	1:254380	1:254380
		ΔHt.	-0.916m	0.008m		
		ΔElev.	-0.908m	0.059m		
		Dist.	589.094m	0.002m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5132	CP5131	**Az.**	99°30'36.5272"	0°00'00.6057"	1:254061	1:254061
		ΔHt.	-0.084m	0.008m		
		ΔElev.	-0.072m	0.059m		
		Dist.	756.832m	0.003m		
CP5131	CP5137	**Az.**	20°47'56.8582"	0°00'00.3023"	1:992852	1:992852
		ΔHt.	-1.171m	0.010m		
		ΔElev.	-1.122m	0.059m		
		Dist.	3223.681m	0.003m		
CP5131	CP5133	**Az.**	82°44'27.0923"	0°00'01.1092"	1:166381	1:166381
		ΔHt.	-0.076m	0.010m		
		ΔElev.	-0.064m	0.059m		
		Dist.	698.579m	0.004m		
CP5131	CP1305	**Az.**	80°15'59.5054"	0°00'00.3064"	1:626967	1:626967
		ΔHt.	-0.442m	0.010m		
		ΔElev.	-0.397m	0.059m		
		Dist.	2492.113m	0.004m		
CP5137	CP5133	**Az.**	188°47'00.2201"	0°00'00.2788"	1:1002676	1:1002676
		ΔHt.	1.094m	0.009m		
		ΔElev.	1.059m	0.060m		
		Dist.	2959.999m	0.003m		
CP5137	CP1305	**Az.**	153°10'06.5528"	0°00'00.2129"	1:810952	1:810952
		ΔHt.	0.728m	0.008m		
		ΔElev.	0.725m	0.059m		
		Dist.	2905.163m	0.004m		
CP5133	CP1305	**Az.**	79°18'23.9561"	0°00'00.3875"	1:503475	1:503475
		ΔHt.	-0.366m	0.009m		
		ΔElev.	-0.334m	0.059m		
		Dist.	1794.438m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP1305	CP5136	**Az.**	48°03'59.2437"	0°00'00.4760"	1:517269	1:517269
		ΔHt.	1.254m	0.012m		
		ΔElev.	1.298m	0.059m		
		Dist.	2224.781m	0.004m		
CP1305	CP5135	**Az.**	39°46'12.1893"	0°00'00.4926"	1:486283	1:486283
		ΔHt.	-0.676m	0.012m		
		ΔElev.	-0.638m	0.059m		
		Dist.	1984.016m	0.004m		
CP5136	CP5135	**Az.**	275°39'40.4075"	0°00'02.2298"	1:100410	1:100410
		ΔHt.	-1.930m	0.010m		
		ΔElev.	-1.936m	0.059m		
		Dist.	387.755m	0.004m		
CP5141	CP5140	**Az.**	64°10'10.1394"	0°00'01.2685"	1:166164	1:166164
		ΔHt.	-0.058m	0.017m		
		ΔElev.	-0.044m	0.061m		
		Dist.	763.761m	0.005m		
CP5141	CP5139	**Az.**	192°22'58.6316"	0°00'00.7023"	1:184326	1:184326
		ΔHt.	-0.075m	0.015m		
		ΔElev.	-0.094m	0.061m		
		Dist.	1256.188m	0.007m		
CP5138	CP5139	**Az.**	297°31'14.8924"	0°00'02.1774"	1:124399	1:124399
		ΔHt.	0.568m	0.015m		
		ΔElev.	0.564m	0.062m		
		Dist.	607.238m	0.005m		
CP5143	CP5140	**Az.**	262°46'53.9922"	0°00'00.9580"	1:232618	1:232618
		ΔHt.	-0.724m	0.016m		
		ΔElev.	-0.741m	0.061m		
		Dist.	1034.539m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5143	CP5142	**Az.**	348°19'40.1849"	0°00'00.8438"	1:200533	1:200533
		ΔHt.	1.133m	0.008m		
		ΔElev.	1.141m	0.059m		
		Dist.	699.177m	0.003m		
CP5146	CP5145	**Az.**	66°45'34.7294"	0°00'00.3660"	1:628394	1:628394
		ΔHt.	-0.798m	0.008m		
		ΔElev.	-0.742m	0.059m		
		Dist.	1755.231m	0.003m		
CP5146	CP5144	**Az.**	90°02'23.9305"	0°00'00.9482"	1:176424	1:176424
		ΔHt.	-0.038m	0.008m		
		ΔElev.	-0.025m	0.059m		
		Dist.	568.712m	0.003m		
CP5145	CP5144	**Az.**	236°26'02.9595"	0°00'00.5418"	1:475047	1:475047
		ΔHt.	0.760m	0.008m		
		ΔElev.	0.717m	0.059m		
		Dist.	1253.146m	0.003m		
CP5145	CP5148	**Az.**	61°01'00.1003"	0°00'00.3279"	1:809852	1:809852
		ΔHt.	-0.316m	0.009m		
		ΔElev.	-0.227m	0.059m		
		Dist.	2463.031m	0.003m		
CP5145	CP5147	**Az.**	51°23'18.5891"	0°00'00.4615"	1:603476	1:603476
		ΔHt.	0.190m	0.008m		
		ΔElev.	0.254m	0.059m		
		Dist.	1722.566m	0.003m		
CP5148	CP5147	**Az.**	261°40'12.2335"	0°00'00.9944"	1:246803	1:246803
		ΔHt.	0.506m	0.009m		
		ΔElev.	0.481m	0.059m		
		Dist.	817.200m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5148	CP5149	**Az.**	109°48'10.5511"	0°00'02.7298"	1:77192	1:77192
		ΔHt.	0.927m	0.017m		
		ΔElev.	0.935m	0.061m		
		Dist.	539.648m	0.007m		
CP5152	CP5150	**Az.**	215°58'16.6043"	0°00'00.8487"	1:214839	1:214839
		ΔHt.	0.053m	0.014m		
		ΔElev.	0.010m	0.061m		
		Dist.	1001.677m	0.005m		
CP5152	CP5151	**Az.**	218°31'43.6792"	0°00'01.8190"	1:100975	1:100975
		ΔHt.	0.170m	0.014m		
		ΔElev.	0.150m	0.061m		
		Dist.	460.179m	0.005m		
CP5152	CP5154	**Az.**	67°33'23.6445"	0°00'00.4017"	1:631287	1:631287
		ΔHt.	0.097m	0.011m		
		ΔElev.	0.191m	0.060m		
		Dist.	2296.589m	0.004m		
CP5152	CP5153	**Az.**	65°58'47.4210"	0°00'00.9015"	1:242408	1:242408
		ΔHt.	-0.346m	0.010m		
		ΔElev.	-0.314m	0.060m		
		Dist.	789.264m	0.003m		
CP5150	CP5151	**Az.**	33°47'55.4547"	0°00'01.6675"	1:105802	1:105802
		ΔHt.	0.117m	0.015m		
		ΔElev.	0.140m	0.062m		
		Dist.	542.345m	0.005m		
CP5154	CP5153	**Az.**	248°23'29.6124"	0°00'00.6656"	1:359421	1:359421
		ΔHt.	-0.443m	0.012m		
		ΔElev.	-0.505m	0.061m		
		Dist.	1507.779m	0.004m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5154	CP5155	**Az.**	73°48'59.8391"	0°00'01.1531"	1:319706	1:319706
		ΔHt.	-0.031m	0.009m		
		ΔElev.	0.014m	0.061m		
		Dist.	1095.521m	0.003m		
CP5120	CP5129	**Az.**	350°30'51.4072"	0°00'00.1439"	1:1579185	1:1579185
		ΔHt.	0.864m	0.008m		
		ΔElev.	0.933m	0.059m		
		Dist.	4050.793m	0.003m		
CP5122	CP5123	**Az.**	182°47'07.8955"	0°00'00.4419"	1:381107	1:381107
		ΔHt.	0.338m	0.046m		
		ΔElev.	0.175m	0.077m		
		Dist.	5030.927m	0.013m		
CP5122	CP5121	**Az.**	0°30'35.0901"	0°00'00.3976"	1:354596	1:354596
		ΔHt.	-1.739m	0.026m		
		ΔElev.	-1.446m	0.067m		
		Dist.	7572.171m	0.021m		
CP5156	CP5157	**Az.**	21°26'56.9016"	0°00'00.4042"	1:765172	1:765172
		ΔHt.	0.468m	0.008m		
		ΔElev.	0.528m	0.065m		
		Dist.	1498.877m	0.002m		
CP5157	CP5158	**Az.**	98°08'38.6280"	0°00'00.7549"	1:217293	1:217293
		ΔHt.	-0.472m	0.009m		
		ΔElev.	-0.449m	0.065m		
		Dist.	983.291m	0.005m		
CP5157	CP5159	**Az.**	58°28'16.1072"	0°00'00.5394"	1:505819	1:505819
		ΔHt.	-0.860m	0.009m		
		ΔElev.	-0.792m	0.065m		
		Dist.	1751.710m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5158	CP5159	**Az.**	26°13'29.0808"	0°00'00.8100"	1:381495	1:381495
		ΔHt.	-0.388m	0.009m		
		ΔElev.	-0.343m	0.065m		
		Dist.	1176.359m	0.003m		
CP5159	CP5161	**Az.**	77°31'17.2171"	0°00'00.6949"	1:353230	1:353230
		ΔHt.	0.717m	0.008m		
		ΔElev.	0.747m	0.065m		
		Dist.	971.534m	0.003m		
CP5159	CP5162	**Az.**	59°49'29.2743"	0°00'00.6949"	1:361441	1:361441
		ΔHt.	0.909m	0.009m		
		ΔElev.	0.948m	0.065m		
		Dist.	1070.478m	0.003m		
CP5159	CP5160	**Az.**	55°10'34.8945"	0°00'01.6772"	1:155425	1:155425
		ΔHt.	1.448m	0.009m		
		ΔElev.	1.463m	0.065m		
		Dist.	411.340m	0.003m		
CP5161	CP5162	**Az.**	355°57'59.6482"	0°00'01.9972"	1:91633	1:91633
		ΔHt.	0.193m	0.009m		
		ΔElev.	0.201m	0.065m		
		Dist.	328.964m	0.004m		
CP5161	CP5160	**Az.**	272°20'42.9421"	0°00'01.0795"	1:202778	1:202778
		ΔHt.	0.731m	0.009m		
		ΔElev.	0.716m	0.065m		
		Dist.	611.419m	0.003m		
CP5162	CP5160	**Az.**	242°43'06.1918"	0°00'01.1874"	1:214589	1:214589
		ΔHt.	0.539m	0.010m		
		ΔElev.	0.515m	0.065m		
		Dist.	661.331m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5162	CP5163	**Az.**	125°21'24.0003"	0°00'01.0361"	1:129466	1:129466
		ΔHt.	-0.219m	0.007m		
		ΔElev.	-0.217m	0.065m		
		Dist.	437.901m	0.003m		
CP5162	CP5165	**Az.**	348°26'25.6878"	0°00'01.7557"	1:115405	1:115405
		ΔHt.	0.619m	0.007m		
		ΔElev.	0.626m	0.065m		
		Dist.	347.897m	0.003m		
CP5162	CP5164	**Az.**	96°59'53.2180"	0°00'01.6190"	1:100308	1:100308
		ΔHt.	-0.371m	0.008m		
		ΔElev.	-0.363m	0.065m		
		Dist.	362.750m	0.004m		
CP5163	CP5165	**Az.**	324°18'40.8926"	0°00'00.7248"	1:205942	1:205942
		ΔHt.	0.838m	0.007m		
		ΔElev.	0.843m	0.065m		
		Dist.	731.656m	0.004m		
CP5163	CP5164	**Az.**	0°47'55.4951"	0°00'03.4306"	1:70724	1:70724
		ΔHt.	-0.152m	0.007m		
		ΔElev.	-0.146m	0.065m		
		Dist.	209.222m	0.003m		
CP5165	CP5164	**Az.**	131°51'28.2258"	0°00'00.9436"	1:145876	1:145876
		ΔHt.	-0.990m	0.008m		
		ΔElev.	-0.989m	0.065m		
		Dist.	577.017m	0.004m		
CP5165	CP5166	**Az.**	283°47'22.3596"	0°00'02.2726"	1:83795	1:83795
		ΔHt.	-0.864m	0.010m		
		ΔElev.	-0.871m	0.065m		
		Dist.	347.293m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5165	CP5167	**Az.**	45°50'32.3027"	0°00'04.4416"	1:59228	1:59228
		ΔHt.	-1.112m	0.012m		
		ΔElev.	-1.103m	0.066m		
		Dist.	260.928m	0.004m		
CP5166	CP5167	**Az.**	79°18'35.9134"	0°00'02.2395"	1:109517	1:109517
		ΔHt.	-0.248m	0.013m		
		ΔElev.	-0.232m	0.066m		
		Dist.	533.739m	0.005m		
CP5167	CP5170	**Az.**	29°50'28.5913"	0°00'00.6363"	1:337903	1:337903
		ΔHt.	-1.213m	0.009m		
		ΔElev.	-1.177m	0.066m		
		Dist.	1071.572m	0.003m		
CP5167	CP5169	**Az.**	31°15'39.8871"	0°00'00.9414"	1:234914	1:234914
		ΔHt.	-1.503m	0.010m		
		ΔElev.	-1.474m	0.067m		
		Dist.	848.751m	0.004m		
CP5167	CP5168	**Az.**	18°16'48.4185"	0°00'01.2648"	1:159985	1:159985
		ΔHt.	-0.899m	0.010m		
		ΔElev.	-0.880m	0.067m		
		Dist.	593.367m	0.004m		
CP5170	CP5169	**Az.**	204°27'29.9970"	0°00'03.5694"	1:59132	1:59132
		ΔHt.	-0.290m	0.011m		
		ΔElev.	-0.297m	0.067m		
		Dist.	224.071m	0.004m		
CP5170	CP5168	**Az.**	223°28'43.2126"	0°00'01.5852"	1:148043	1:148043
		ΔHt.	0.315m	0.010m		
		ΔElev.	0.297m	0.067m		
		Dist.	504.461m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5170	CP5173	**Az.**	23°03'42.9284"	0°00'01.3060"	1:118566	1:118566
		ΔHt.	0.837m	0.016m		
		ΔElev.	0.861m	0.068m		
		Dist.	769.444m	0.006m		
CP5170	CP5171	**Az.**	339°58'03.0551"	0°00'03.5231"	1:37528	1:37528
		ΔHt.	0.967m	0.011m		
		ΔElev.	0.970m	0.068m		
		Dist.	172.027m	0.005m		
CP5170	CP5172	**Az.**	7°58'20.1365"	0°00'01.8467"	1:70102	1:70102
		ΔHt.	1.409m	0.011m		
		ΔElev.	1.418m	0.068m		
		Dist.	325.608m	0.005m		
CP5169	CP5168	**Az.**	237°29'25.7859"	0°00'02.9298"	1:84101	1:84101
		ΔHt.	0.605m	0.011m		
		ΔElev.	0.594m	0.067m		
		Dist.	301.598m	0.004m		
CP5173	CP5171	**Az.**	213°24'31.1218"	0°00'01.7554"	1:101739	1:101739
		ΔHt.	0.130m	0.017m		
		ΔElev.	0.109m	0.068m		
		Dist.	654.465m	0.006m		
CP5173	CP5172	**Az.**	213°36'54.0371"	0°00'02.4674"	1:72634	1:72634
		ΔHt.	0.572m	0.017m		
		ΔElev.	0.557m	0.068m		
		Dist.	462.891m	0.006m		
CP5173	CP5175	**Az.**	25°36'01.2645"	0°00'02.0836"	1:75972	1:75972
		ΔHt.	0.462m	0.021m		
		ΔElev.	0.480m	0.069m		
		Dist.	609.654m	0.008m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5173	CP5174	**Az.**	47°37'57.0905"	0°00'03.4738"	1:57930	1:57930
		ΔHt.	-0.222m	0.021m		
		ΔElev.	-0.209m	0.069m		
		Dist.	423.488m	0.007m		
CP5171	CP5172	**Az.**	32°54'30.1570"	0°00'03.8598"	1:47214	1:47214
		ΔHt.	0.442m	0.011m		
		ΔElev.	0.448m	0.068m		
		Dist.	191.585m	0.004m		
CP5175	CP5174	**Az.**	169°24'21.2206"	0°00'03.3893"	1:43852	1:43852
		ΔHt.	-0.684m	0.016m		
		ΔElev.	-0.689m	0.069m		
		Dist.	269.009m	0.006m		
CP5190	CP5191	**Az.**	251°54'40.8755"	0°00'02.0749"	1:103054	1:103054
		ΔHt.	-0.226m	0.013m		
		ΔElev.	-0.236m	0.066m		
		Dist.	502.081m	0.005m		
CP5190	CP5188	**Az.**	165°11'17.6640"	0°00'01.6321"	1:106433	1:106433
		ΔHt.	-0.639m	0.010m		
		ΔElev.	-0.640m	0.065m		
		Dist.	490.534m	0.005m		
CP5190	CP5189	**Az.**	175°52'53.3485"	0°00'02.1756"	1:74356	1:74356
		ΔHt.	-0.117m	0.009m		
		ΔElev.	-0.119m	0.066m		
		Dist.	322.306m	0.004m		
CP5190	CP5194	**Az.**	323°18'27.5786"	0°00'01.3439"	1:221049	1:221049
		ΔHt.	0.491m	0.014m		
		ΔElev.	0.487m	0.065m		
		Dist.	668.011m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5190	CP5192	**Az.**	13°14'20.9609"	0°00'02.1284"	1:103996	1:103996
		ΔHt.	-0.673m	0.014m		
		ΔElev.	-0.669m	0.066m		
		Dist.	367.712m	0.004m		
CP5190	CP5193	**Az.**	354°54'34.7270"	0°00'01.5390"	1:179920	1:179920
		ΔHt.	0.296m	0.013m		
		ΔElev.	0.299m	0.066m		
		Dist.	546.234m	0.003m		
CP5191	CP5188	**Az.**	117°50'30.7005"	0°00'01.8932"	1:154965	1:154965
		ΔHt.	-0.414m	0.013m		
		ΔElev.	-0.404m	0.066m		
		Dist.	681.581m	0.004m		
CP5191	CP5189	**Az.**	108°18'24.4161"	0°00'02.1843"	1:137427	1:137427
		ΔHt.	0.109m	0.012m		
		ΔElev.	0.118m	0.067m		
		Dist.	527.099m	0.004m		
CP5188	CP5189	**Az.**	326°12'11.3842"	0°00'04.8561"	1:44603	1:44603
		ΔHt.	0.523m	0.010m		
		ΔElev.	0.522m	0.066m		
		Dist.	183.825m	0.004m		
CP5188	CP5186	**Az.**	183°49'01.0922"	0°00'00.8906"	1:195396	1:195396
		ΔHt.	-1.436m	0.008m		
		ΔElev.	-1.443m	0.065m		
		Dist.	753.389m	0.004m		
CP5188	CP5185	**Az.**	225°06'32.7099"	0°00'00.6719"	1:433778	1:433778
		ΔHt.	-1.336m	0.010m		
		ΔElev.	-1.366m	0.065m		
		Dist.	1457.457m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5188	CP5187	**Az.**	179°17'11.1210"	0°00'01.2013"	1:134960	1:134960
		ΔHt.	-0.431m	0.008m		
		ΔElev.	-0.435m	0.065m		
		Dist.	527.936m	0.004m		
CP5186	CP5185	**Az.**	254°15'31.3624"	0°00'01.0175"	1:292280	1:292280
		ΔHt.	0.100m	0.010m		
		ΔElev.	0.077m	0.065m		
		Dist.	1020.662m	0.003m		
CP5186	CP5187	**Az.**	14°13'18.6571"	0°00'03.0848"	1:65630	1:65630
		ΔHt.	1.004m	0.008m		
		ΔElev.	1.008m	0.066m		
		Dist.	230.899m	0.004m		
CP5185	CP5187	**Az.**	64°16'01.8074"	0°00'00.9183"	1:341246	1:341246
		ΔHt.	0.905m	0.010m		
		ΔElev.	0.931m	0.065m		
		Dist.	1153.462m	0.003m		
CP5185	CP5182	**Az.**	120°22'00.6333"	0°00'00.6482"	1:212011	1:212011
		ΔHt.	-0.287m	0.010m		
		ΔElev.	-0.273m	0.065m		
		Dist.	1091.435m	0.005m		
CP5185	CP5181	**Az.**	138°01'31.7984"	0°00'00.4549"	1:313104	1:313104
		ΔHt.	-0.740m	0.009m		
		ΔElev.	-0.731m	0.064m		
		Dist.	1494.778m	0.005m		
CP5185	CP5183	**Az.**	118°58'30.4117"	0°00'00.7659"	1:180631	1:180631
		ΔHt.	-0.006m	0.009m		
		ΔElev.	0.006m	0.065m		
		Dist.	879.143m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5185	CP5184	**Az.**	211°54'44.0584"	0°00'01.3383"	1:232997	1:232997
		ΔHt.	-0.652m	0.010m		
		ΔElev.	-0.669m	0.065m		
		Dist.	829.248m	0.004m		
CP5231	CP5195	**Az.**	84°23'23.8894"	0°00'00.4992"	1:467501	1:467501
		ΔHt.	0.128m	0.009m		
		ΔElev.	0.161m	0.065m		
		Dist.	1509.646m	0.003m		
CP5231	CP5227	**Az.**	329°18'13.9256"	0°00'00.6593"	1:263047	1:263047
		ΔHt.	0.674m	0.009m		
		ΔElev.	0.669m	0.065m		
		Dist.	926.123m	0.004m		
CP5231	CP5230	**Az.**	10°03'22.9525"	0°00'00.9776"	1:203056	1:203056
		ΔHt.	0.377m	0.011m		
		ΔElev.	0.385m	0.066m		
		Dist.	792.781m	0.004m		
CP5195	CP5227	**Az.**	288°11'25.9989"	0°00'00.2965"	1:693923	1:693923
		ΔHt.	0.546m	0.008m		
		ΔElev.	0.508m	0.065m		
		Dist.	2079.010m	0.003m		
CP5195	CP5230	**Az.**	294°54'10.5012"	0°00'00.4947"	1:397988	1:397988
		ΔHt.	0.249m	0.010m		
		ΔElev.	0.224m	0.065m		
		Dist.	1503.717m	0.004m		
CP5195	CP5197	**Az.**	57°12'04.0213"	0°00'01.1470"	1:151484	1:151484
		ΔHt.	-0.115m	0.010m		
		ΔElev.	-0.105m	0.064m		
		Dist.	498.109m	0.003m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5195	CP5196	**Az.**	68°30'07.9276"	0°00'00.5730"	1:296347	1:296347
		ΔHt.	-0.890m	0.011m		
		ΔElev.	-0.868m	0.065m		
		Dist.	1058.985m	0.004m		
CP5195	CP5194	**Az.**	100°03'23.3230"	0°00'01.7746"	1:120230	1:120230
		ΔHt.	-0.426m	0.012m		
		ΔElev.	-0.418m	0.065m		
		Dist.	425.795m	0.004m		
CP5227	CP5230	**Az.**	91°28'29.4066"	0°00'01.2582"	1:178728	1:178728
		ΔHt.	-0.297m	0.010m		
		ΔElev.	-0.284m	0.065m		
		Dist.	611.408m	0.003m		
CP5227	CP5229	**Az.**	270°03'25.9660"	0°00'01.0415"	1:344860	1:344860
		ΔHt.	0.254m	0.014m		
		ΔElev.	0.230m	0.066m		
		Dist.	1058.253m	0.003m		
CP5227	CP5228	**Az.**	351°21'34.3857"	0°00'00.7808"	1:150350	1:150350
		ΔHt.	0.136m	0.015m		
		ΔElev.	0.137m	0.066m		
		Dist.	857.763m	0.006m		
CP5229	CP5228	**Az.**	47°39'05.4879"	0°00'00.8881"	1:285509	1:285509
		ΔHt.	-0.118m	0.016m		
		ΔElev.	-0.093m	0.067m		
		Dist.	1257.426m	0.004m		
CP5228	CP5222	**Az.**	340°52'47.1147"	0°00'00.6340"	1:293129	1:293129
		ΔHt.	-0.070m	0.023m		
		ΔElev.	-0.081m	0.069m		
		Dist.	2234.063m	0.008m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5228	CP5224	**Az.**	289°00'04.8645"	0°00'00.4136"	1:584843	1:584843
		ΔHt.	0.409m	0.014m		
		ΔElev.	0.364m	0.068m		
		Dist.	2187.740m	0.004m		
CP5228	CP5223	**Az.**	316°40'49.4101"	0°00'00.2792"	1:763577	1:763577
		ΔHt.	0.762m	0.014m		
		ΔElev.	0.720m	0.068m		
		Dist.	2999.482m	0.004m		
CP5222	CP5224	**Az.**	223°42'12.1772"	0°00'00.7776"	1:259535	1:259535
		ΔHt.	0.479m	0.024m		
		ΔElev.	0.446m	0.070m		
		Dist.	1934.621m	0.007m		
CP5222	CP5223	**Az.**	273°04'46.1883"	0°00'01.2158"	1:198774	1:198774
		ΔHt.	0.832m	0.023m		
		ΔElev.	0.801m	0.070m		
		Dist.	1327.997m	0.007m		
CP5222	CP5221	**Az.**	0°21'56.9418"	0°00'02.3370"	1:95060	1:95060
		ΔHt.	0.679m	0.022m		
		ΔElev.	0.680m	0.074m		
		Dist.	1045.366m	0.011m		
CP5222	CP5219	**Az.**	26°10'13.9412"	0°00'01.1208"	1:241314	1:241314
		ΔHt.	0.995m	0.010m		
		ΔElev.	1.007m	0.071m		
		Dist.	1148.502m	0.005m		
CP5222	CP5220	**Az.**	133°45'19.9601"	0°00'01.1218"	1:89293	1:89293
		ΔHt.	0.101m	0.012m		
		ΔElev.	0.112m	0.072m		
		Dist.	711.712m	0.008m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5224	CP5223	**Az.**	0°24'24.9277"	0°00'00.3845"	1:509245	1:509245
		ΔHt.	0.353m	0.010m		
		ΔElev.	0.356m	0.069m		
		Dist.	1469.968m	0.003m		
CP5224	CP5226	**Az.**	299°58'00.7213"	0°00'00.4890"	1:386855	1:386855
		ΔHt.	-0.394m	0.016m		
		ΔElev.	-0.429m	0.071m		
		Dist.	1735.360m	0.004m		
CP5224	CP5225	**Az.**	299°31'57.3721"	0°00'00.2890"	1:656991	1:656991
		ΔHt.	-0.051m	0.015m		
		ΔElev.	-0.111m	0.071m		
		Dist.	2974.082m	0.005m		
CP5223	CP5226	**Az.**	248°16'37.4549"	0°00'00.5309"	1:380655	1:380655
		ΔHt.	-0.747m	0.016m		
		ΔElev.	-0.785m	0.071m		
		Dist.	1629.530m	0.004m		
CP5223	CP5225	**Az.**	269°54'46.5549"	0°00'00.3261"	1:591074	1:591074
		ΔHt.	-0.404m	0.015m		
		ΔElev.	-0.467m	0.071m		
		Dist.	2598.119m	0.004m		
CP5226	CP5225	**Az.**	298°55'02.3887"	0°00'00.7681"	1:244248	1:244248
		ΔHt.	0.343m	0.018m		
		ΔElev.	0.318m	0.072m		
		Dist.	1238.842m	0.005m		
CP5221	CP5219	**Az.**	91°40'15.1091"	0°00'04.4208"	1:41797	1:41797
		ΔHt.	0.316m	0.022m		
		ΔElev.	0.327m	0.075m		
		Dist.	500.079m	0.012m		

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Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5221	CP5220	**Az.**	161°44'13.6237"	0°00'01.2059"	1:121294	1:121294
		ΔHt.	-0.578m	0.023m		
		ΔElev.	-0.568m	0.075m		
		Dist.	1619.109m	0.013m		
CP5219	CP5220	**Az.**	179°43'09.0426"	0°00'00.6897"	1:207501	1:207501
		ΔHt.	-0.894m	0.012m		
		ΔElev.	-0.895m	0.072m		
		Dist.	1522.990m	0.007m		
CP5219	CP5217	**Az.**	90°32'18.9639"	0°00'01.5180"	1:157064	1:157064
		ΔHt.	-0.070m	0.007m		
		ΔElev.	-0.059m	0.072m		
		Dist.	481.354m	0.003m		
CP5219	CP5216	**Az.**	128°05'46.8729"	0°00'00.9134"	1:299831	1:299831
		ΔHt.	-0.421m	0.010m		
		ΔElev.	-0.400m	0.072m		
		Dist.	1224.893m	0.004m		
CP5219	CP5218	**Az.**	147°47'49.5043"	0°00'00.8495"	1:215361	1:215361
		ΔHt.	-0.362m	0.009m		
		ΔElev.	-0.351m	0.072m		
		Dist.	909.488m	0.004m		
CP5217	CP5216	**Az.**	147°16'59.2645"	0°00'01.3299"	1:250288	1:250288
		ΔHt.	-0.351m	0.010m		
		ΔElev.	-0.341m	0.072m		
		Dist.	892.891m	0.004m		
CP5217	CP5218	**Az.**	179°45'04.6037"	0°00'01.0124"	1:180761	1:180761
		ΔHt.	-0.292m	0.009m		
		ΔElev.	-0.292m	0.072m		
		Dist.	765.061m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5216	CP5218	**Az.**	268°21'02.9069"	0°00'02.0023"	1:82760	1:82760
		ΔHt.	0.059m	0.011m		
		ΔElev.	0.049m	0.072m		
		Dist.	479.475m	0.006m		
CP5216	CP5214	**Az.**	88°49'01.3173"	0°00'02.6987"	1:60444	1:60444
		ΔHt.	-0.462m	0.021m		
		ΔElev.	-0.454m	0.070m		
		Dist.	391.583m	0.006m		
CP5216	CP5213	**Az.**	27°11'03.9237"	0°00'01.2149"	1:145441	1:145441
		ΔHt.	0.239m	0.020m		
		ΔElev.	0.247m	0.072m		
		Dist.	854.568m	0.006m		
CP5216	CP5215	**Az.**	0°05'18.5462"	0°00'01.8686"	1:148171	1:148171
		ΔHt.	-0.254m	0.023m		
		ΔElev.	-0.254m	0.073m		
		Dist.	749.708m	0.005m		
CP5214	CP5213	**Az.**	359°55'08.9346"	0°00'01.7626"	1:151587	1:151587
		ΔHt.	0.701m	0.022m		
		ΔElev.	0.701m	0.071m		
		Dist.	752.089m	0.005m		
CP5214	CP5215	**Az.**	332°14'32.7102"	0°00'01.8282"	1:186287	1:186287
		ΔHt.	0.208m	0.023m		
		ΔElev.	0.200m	0.072m		
		Dist.	838.076m	0.004m		
CP5214	CP5212	**Az.**	47°45'30.2309"	0°00'01.4573"	1:126017	1:126017
		ΔHt.	-0.038m	0.019m		
		ΔElev.	-0.024m	0.070m		
		Dist.	891.254m	0.007m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5214	CP5210	**Az.**	98°13'44.5967"	0°00'00.8901"	1:242225	1:242225
		ΔHt.	-0.772m	0.013m		
		ΔElev.	-0.749m	0.068m		
		Dist.	1155.946m	0.005m		
CP5214	CP5211	**Az.**	72°16'48.4922"	0°00'00.7316"	1:330915	1:330915
		ΔHt.	-1.052m	0.017m		
		ΔElev.	-1.014m	0.070m		
		Dist.	1977.669m	0.006m		
CP5213	CP5215	**Az.**	268°27'42.0673"	0°00'02.3092"	1:64979	1:64979
		ΔHt.	-0.493m	0.020m		
		ΔElev.	-0.501m	0.074m		
		Dist.	389.397m	0.006m		
CP5212	CP5210	**Az.**	147°39'23.3019"	0°00'01.5498"	1:148426	1:148426
		ΔHt.	-0.735m	0.019m		
		ΔElev.	-0.725m	0.070m		
		Dist.	905.043m	0.006m		
CP5212	CP5211	**Az.**	89°52'23.0618"	0°00'01.3216"	1:162225	1:162225
		ΔHt.	-1.015m	0.021m		
		ΔElev.	-0.990m	0.071m		
		Dist.	1224.033m	0.008m		
CP5210	CP5211	**Az.**	43°57'24.3984"	0°00'01.3147"	1:179847	1:179847
		ΔHt.	-0.280m	0.017m		
		ΔElev.	-0.265m	0.069m		
		Dist.	1065.914m	0.006m		
CP5210	CP5207	**Az.**	140°14'57.4007"	0°00'00.7122"	1:237079	1:237079
		ΔHt.	-0.673m	0.011m		
		ΔElev.	-0.662m	0.067m		
		Dist.	919.431m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5210	CP5208	**Az.**	184°09'24.5611"	0°00'00.7885"	1:186421	1:186421
		ΔHt.	-0.122m	0.009m		
		ΔElev.	-0.124m	0.067m		
		Dist.	668.816m	0.004m		
CP5210	CP5209	**Az.**	90°41'27.3991"	0°00'01.2797"	1:227568	1:227568
		ΔHt.	-0.461m	0.010m		
		ΔElev.	-0.449m	0.067m		
		Dist.	619.953m	0.003m		
CP5207	CP5208	**Az.**	273°35'03.3497"	0°00'01.1998"	1:252314	1:252314
		ΔHt.	0.551m	0.009m		
		ΔElev.	0.538m	0.066m		
		Dist.	637.655m	0.003m		
CP5207	CP5209	**Az.**	2°37'13.9948"	0°00'00.8062"	1:176893	1:176893
		ΔHt.	0.211m	0.010m		
		ΔElev.	0.213m	0.067m		
		Dist.	700.144m	0.004m		
CP5207	CP5205	**Az.**	187°21'10.2785"	0°00'00.9065"	1:152743	1:152743
		ΔHt.	0.613m	0.010m		
		ΔElev.	0.610m	0.066m		
		Dist.	629.631m	0.004m		
CP5207	CP5206	**Az.**	223°19'34.8232"	0°00'00.8363"	1:222388	1:222388
		ΔHt.	0.375m	0.012m		
		ΔElev.	0.360m	0.066m		
		Dist.	974.868m	0.004m		
CP5208	CP5209	**Az.**	45°22'47.1826"	0°00'00.7251"	1:325468	1:325468
		ΔHt.	-0.339m	0.009m		
		ΔElev.	-0.325m	0.067m		
		Dist.	939.036m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5205	CP5206	**Az.**	261°48'18.5228"	0°00'01.6735"	1:169720	1:169720
		ΔHt.	-0.238m	0.012m		
		ΔElev.	-0.250m	0.066m		
		Dist.	594.397m	0.004m		
CP5206	CP5204	**Az.**	112°32'02.4452"	0°00'01.1138"	1:181163	1:181163
		ΔHt.	-0.314m	0.015m		
		ΔElev.	-0.300m	0.068m		
		Dist.	764.609m	0.004m		
CP5206	CP5202	**Az.**	131°12'50.4562"	0°00'00.8819"	1:228259	1:228259
		ΔHt.	-0.229m	0.016m		
		ΔElev.	-0.216m	0.069m		
		Dist.	1014.733m	0.004m		
CP5204	CP5202	**Az.**	171°21'27.7781"	0°00'02.2370"	1:94202	1:94202
		ΔHt.	0.085m	0.015m		
		ΔElev.	0.085m	0.070m		
		Dist.	379.874m	0.004m		
CP5203	CP5200	**Az.**	126°33'29.7038"	0°00'00.7951"	1:214132	1:214132
		ΔHt.	-0.693m	0.009m		
		ΔElev.	-0.681m	0.064m		
		Dist.	883.545m	0.004m		
CP5203	CP5201	**Az.**	155°20'27.4425"	0°00'01.2718"	1:110698	1:110698
		ΔHt.	-0.362m	0.011m		
		ΔElev.	-0.360m	0.065m		
		Dist.	607.982m	0.005m		
CP5200	CP5201	**Az.**	266°42'26.4360"	0°00'02.4175"	1:113944	1:113944
		ΔHt.	0.330m	0.011m		
		ΔElev.	0.321m	0.065m		
		Dist.	456.804m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5200	CP5199	**Az.**	241°48'26.5011"	0°00'01.5325"	1:256870	1:256870
		ΔHt.	0.584m	0.008m		
		ΔElev.	0.569m	0.064m		
		Dist.	753.931m	0.003m		
CP5200	CP5197	**Az.**	207°09'18.5232"	0°00'00.9404"	1:252306	1:252306
		ΔHt.	0.341m	0.008m		
		ΔElev.	0.327m	0.064m		
		Dist.	961.653m	0.004m		
CP5200	CP5198	**Az.**	181°02'48.6983"	0°00'01.8084"	1:80936	1:80936
		ΔHt.	0.032m	0.008m		
		ΔElev.	0.030m	0.064m		
		Dist.	443.828m	0.005m		
CP5199	CP5197	**Az.**	155°41'25.0707"	0°00'01.1004"	1:101681	1:101681
		ΔHt.	-0.243m	0.008m		
		ΔElev.	-0.241m	0.064m		
		Dist.	548.050m	0.005m		
CP5199	CP5198	**Az.**	97°35'45.5899"	0°00'01.7196"	1:148971	1:148971
		ΔHt.	-0.551m	0.008m		
		ΔElev.	-0.539m	0.065m		
		Dist.	662.195m	0.004m		
CP5197	CP5198	**Az.**	46°16'55.9988"	0°00'01.9916"	1:169474	1:169474
		ΔHt.	-0.308m	0.008m		
		ΔElev.	-0.297m	0.064m		
		Dist.	596.022m	0.004m		
CP5197	CP5196	**Az.**	78°12'46.0207"	0°00'01.0488"	1:178658	1:178658
		ΔHt.	-0.776m	0.010m		
		ΔElev.	-0.764m	0.065m		
		Dist.	578.824m	0.003m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5197	CP5194	**Az.**	179°54'34.9000"	0°00'02.1265"	1:99705	1:99705
		ΔHt.	-0.312m	0.011m		
		ΔElev.	-0.314m	0.065m		
		Dist.	344.174m	0.003m		
CP5196	CP5194	**Az.**	230°45'28.9023"	0°00'00.9020"	1:187117	1:187117
		ΔHt.	0.464m	0.012m		
		ΔElev.	0.450m	0.065m		
		Dist.	730.937m	0.004m		
CP5194	CP5192	**Az.**	110°11'03.3974"	0°00'01.3247"	1:153797	1:153797
		ΔHt.	-1.165m	0.012m		
		ΔElev.	-1.156m	0.066m		
		Dist.	514.993m	0.003m		
CP5194	CP5193	**Az.**	88°37'14.9639"	0°00'01.7118"	1:90616	1:90616
		ΔHt.	-0.195m	0.012m		
		ΔElev.	-0.188m	0.066m		
		Dist.	350.784m	0.004m		
CP5192	CP5193	**Az.**	324°31'11.5186"	0°00'03.4362"	1:89720	1:89720
		ΔHt.	0.970m	0.011m		
		ΔElev.	0.968m	0.066m		
		Dist.	228.586m	0.003m		
CP5182	CP5181	**Az.**	174°05'06.5615"	0°00'01.4041"	1:149964	1:149964
		ΔHt.	-0.453m	0.008m		
		ΔElev.	-0.458m	0.064m		
		Dist.	562.523m	0.004m		
CP5182	CP5183	**Az.**	306°06'28.0506"	0°00'02.7542"	1:48629	1:48629
		ΔHt.	0.281m	0.008m		
		ΔElev.	0.279m	0.065m		
		Dist.	213.620m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5182	CP5184	**Az.**	263°42'45.6048"	0°00'00.6072"	1:335000	1:335000
		ΔHt.	-0.366m	0.009m		
		ΔElev.	-0.396m	0.065m		
		Dist.	1388.416m	0.004m		
CP5181	CP5179	**Az.**	134°31'57.4171"	0°00'00.8141"	1:219261	1:219261
		ΔHt.	-0.814m	0.010m		
		ΔElev.	-0.809m	0.064m		
		Dist.	860.663m	0.004m		
CP5181	CP5183	**Az.**	341°24'31.7474"	0°00'00.9198"	1:191712	1:191712
		ΔHt.	0.734m	0.008m		
		ΔElev.	0.737m	0.064m		
		Dist.	723.153m	0.004m		
CP5181	CP5180	**Az.**	157°31'39.1141"	0°00'01.0068"	1:170595	1:170595
		ΔHt.	-0.789m	0.008m		
		ΔElev.	-0.791m	0.064m		
		Dist.	544.728m	0.003m		
CP5181	CP5184	**Az.**	285°49'14.5329"	0°00'00.4372"	1:350997	1:350997
		ΔHt.	0.087m	0.008m		
		ΔElev.	0.062m	0.064m		
		Dist.	1494.649m	0.004m		
CP5181	CP5177	**Az.**	186°40'06.2996"	0°00'00.8149"	1:234327	1:234327
		ΔHt.	-0.432m	0.007m		
		ΔElev.	-0.442m	0.064m		
		Dist.	660.172m	0.003m		
CP5181	CP5178	**Az.**	159°56'22.9426"	0°00'00.9976"	1:175582	1:175582
		ΔHt.	-0.604m	0.013m		
		ΔElev.	-0.607m	0.065m		
		Dist.	734.784m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5179	CP5180	**Az.**	283°53'36.5455"	0°00'01.7721"	1:118847	1:118847
		ΔHt.	0.025m	0.010m		
		ΔElev.	0.018m	0.065m		
		Dist.	417.519m	0.004m		
CP5179	CP5177	**Az.**	265°41'06.4481"	0°00'01.1391"	1:204306	1:204306
		ΔHt.	0.381m	0.010m		
		ΔElev.	0.367m	0.064m		
		Dist.	692.151m	0.003m		
CP5179	CP5178	**Az.**	256°31'45.1154"	0°00'02.7146"	1:88123	1:88123
		ΔHt.	0.209m	0.014m		
		ΔElev.	0.201m	0.065m		
		Dist.	371.719m	0.004m		
CP5183	CP5184	**Az.**	257°02'11.5908"	0°00'00.6696"	1:334279	1:334279
		ΔHt.	-0.647m	0.008m		
		ΔElev.	-0.675m	0.065m		
		Dist.	1239.055m	0.004m		
CP5180	CP5177	**Az.**	241°51'52.2482"	0°00'01.9669"	1:125622	1:125622
		ΔHt.	0.357m	0.008m		
		ΔElev.	0.349m	0.064m		
		Dist.	323.054m	0.003m		
CP5180	CP5178	**Az.**	166°48'06.3421"	0°00'03.8174"	1:47018	1:47018
		ΔHt.	0.185m	0.013m		
		ΔElev.	0.183m	0.065m		
		Dist.	191.913m	0.004m		
CP5177	CP5178	**Az.**	95°59'29.0060"	0°00'02.6119"	1:83793	1:83793
		ΔHt.	-0.172m	0.013m		
		ΔElev.	-0.166m	0.065m		
		Dist.	330.504m	0.004m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5177	CP5176	**Az.**	275°40'40.4264"	0°00'00.7979"	1:454177	1:454177
		ΔHt.	0.201m	0.012m		
		ΔElev.	0.174m	0.064m		
		Dist.	1392.692m	0.003m		
CP5125	CP5126	**Az.**	114°42'03.3640"	0°00'00.4313"	1:394561	1:394561
		ΔHt.	0.592m	0.062m		
		ΔElev.	0.631m	0.087m		
		Dist.	10471.707m	0.027m		
CP5125	CP5124	**Az.**	324°54'15.3798"	0°00'00.1607"	1:752941	1:752941
		ΔHt.	-0.619m	0.014m		
		ΔElev.	-0.527m	0.061m		
		Dist.	6309.151m	0.008m		
CP5300	CP5341	**Az.**	199°56'29.0122"	0°00'00.1029"	1:2006494	1:2006494
		ΔHt.	-1.140m	0.046m		
		ΔElev.	-1.975m	0.078m		
		Dist.	23025.071m	0.011m		
CP5300	CP5343	**Az.**	183°52'09.5624"	0°00'00.2047"	1:1002942	1:1002942
		ΔHt.	-0.614m	0.048m		
		ΔElev.	-1.071m	0.083m		
		Dist.	11995.958m	0.012m		
CP5341	CP5343	**Az.**	36°00'59.1142"	0°00'00.1732"	1:1151743	1:1151743
		ΔHt.	0.527m	0.039m		
		ΔElev.	0.904m	0.073m		
		Dist.	11967.994m	0.010m		
CP5341	CP5301	**Az.**	116°46'06.5856"	0°00'00.1382"	1:1096304	1:1096304
		ΔHt.	0.755m	0.029m		
		ΔElev.	0.925m	0.073m		
		Dist.	24101.530m	0.022m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5341	CP5342	**Az.**	90°11'41.6287"	0°00'00.2216"	1:1373046	1:1373046
		ΔHt.	0.049m	0.028m		
		ΔElev.	0.382m	0.072m		
		Dist.	18358.377m	0.013m		
CP5341	CP5337	**Az.**	118°48'01.9040"	0°00'00.5711"	1:271662	1:271662
		ΔHt.	-0.389m	0.036m		
		ΔElev.	-0.335m	0.076m		
		Dist.	11013.845m	0.041m		
CP5341	CP5338	**Az.**	182°13'48.7089"	0°00'00.1336"	1:1390744	1:1390744
		ΔHt.	-0.087m	0.020m		
		ΔElev.	-0.252m	0.067m		
		Dist.	11771.971m	0.008m		
CP5301	CP5342	**Az.**	343°46'31.5440"	0°00'00.1964"	1:402029	1:402029
		ΔHt.	-0.706m	0.029m		
		ΔElev.	-0.542m	0.077m		
		Dist.	11245.758m	0.028m		
CP5301	CP5337	**Az.**	295°09'26.0616"	0°00'00.5191"	1:357299	1:357299
		ΔHt.	-1.144m	0.034m		
		ΔElev.	-1.260m	0.080m		
		Dist.	13100.433m	0.037m		
CP5301	CP5338	**Az.**	267°43'51.3331"	0°00'00.2204"	1:1514081	1:1514081
		ΔHt.	-0.842m	0.030m		
		ΔElev.	-1.177m	0.072m		
		Dist.	21995.495m	0.015m		
CP5342	CP5337	**Az.**	239°01'29.5894"	0°00'01.0134"	1:758713	1:758713
		ΔHt.	-0.439m	0.036m		
		ΔElev.	-0.717m	0.080m		
		Dist.	10163.852m	0.013m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5342	CP5338	**Az.**	238°12'29.7868"	0°00'00.2045"	1:2345139	1:2345139
		ΔHt.	-0.136m	0.028m		
		ΔElev.	-0.634m	0.072m		
		Dist.	22157.608m	0.009m		
CP5337	CP5338	**Az.**	237°28'37.3175"	0°00'00.8476"	1:939581	1:939581
		ΔHt.	0.303m	0.037m		
		ΔElev.	0.083m	0.075m		
		Dist.	11995.663m	0.013m		
CP5338	CP5316	**Az.**	189°39'41.0439"	0°00'00.1457"	1:1249003	1:1249003
		ΔHt.	1.544m	0.027m		
		ΔElev.	1.453m	0.064m		
		Dist.	13718.950m	0.011m		
CP5338	CP5339	**Az.**	273°03'17.3553"	0°00'00.3465"	1:818539	1:818539
		ΔHt.	0.943m	0.024m		
		ΔElev.	0.880m	0.066m		
		Dist.	7122.625m	0.009m		
CP5338	CP5334	**Az.**	158°34'13.2687"	0°00'00.1534"	1:857228	1:857228
		ΔHt.	0.279m	0.038m		
		ΔElev.	0.244m	0.072m		
		Dist.	15752.076m	0.018m		
CP5338	CP5340	**Az.**	285°46'38.6423"	0°00'00.1700"	1:1469990	1:1469990
		ΔHt.	0.846m	0.025m		
		ΔElev.	0.743m	0.065m		
		Dist.	13718.287m	0.009m		
CP5316	CP5339	**Az.**	340°54'23.0864"	0°00'00.1142"	1:1440782	1:1440782
		ΔHt.	-0.601m	0.025m		
		ΔElev.	-0.573m	0.063m		
		Dist.	14712.472m	0.010m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5316	CP5334	**Az.**	98°02'01.1941"	0°00'00.4383"	1:686842	1:686842
		ΔHt.	-1.266m	0.038m		
		ΔElev.	-1.209m	0.069m		
		Dist.	8137.601m	0.012m		
CP5316	CP5336	**Az.**	181°13'12.0832"	0°00'00.0850"	1:2676142	1:2676142
		ΔHt.	-0.247m	0.012m		
		ΔElev.	-0.313m	0.061m		
		Dist.	11235.073m	0.004m		
CP5316	CP5340	**Az.**	327°42'36.9079"	0°00'00.0839"	1:2136322	1:2136322
		ΔHt.	-0.698m	0.024m		
		ΔElev.	-0.710m	0.062m		
		Dist.	20408.407m	0.010m		
CP5316	CP5302	**Az.**	114°50'21.3458"	0°00'00.1037"	1:2524031	1:2524031
		ΔHt.	-1.217m	0.021m		
		ΔElev.	-1.099m	0.064m		
		Dist.	19863.088m	0.008m		
CP5316	CP5333	**Az.**	145°04'35.8823"	0°00'00.0686"	1:4226822	1:4226822
		ΔHt.	0.202m	0.014m		
		ΔElev.	0.183m	0.061m		
		Dist.	18057.114m	0.004m		
CP5339	CP5334	**Az.**	139°25'26.3742"	0°00'00.1330"	1:1206338	1:1206338
		ΔHt.	-0.664m	0.036m		
		ΔElev.	-0.636m	0.072m		
		Dist.	19795.408m	0.016m		
CP5339	CP5336	**Az.**	169°39'58.5850"	0°00'00.0649"	1:2572569	1:2572569
		ΔHt.	0.355m	0.025m		
		ΔElev.	0.260m	0.064m		
		Dist.	25548.277m	0.010m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5339	CP5340	**Az.**	298°47'22.9560"	0°00'00.2766"	1:729402	1:729402
		ΔHt.	-0.097m	0.022m		
		ΔElev.	-0.137m	0.065m		
		Dist.	6949.874m	0.010m		
CP5334	CP5340	**Az.**	314°09'40.9069"	0°00'00.0997"	1:1773618	1:1773618
		ΔHt.	0.567m	0.035m		
		ΔElev.	0.499m	0.071m		
		Dist.	26413.232m	0.015m		
CP5336	CP5302	**Az.**	81°00'43.8129"	0°00'00.0871"	1:1823405	1:1823405
		ΔHt.	-0.970m	0.021m		
		ΔElev.	-0.786m	0.064m		
		Dist.	18491.757m	0.010m		
CP5336	CP5333	**Az.**	108°39'51.5774"	0°00'00.1027"	1:2199079	1:2199079
		ΔHt.	0.449m	0.014m		
		ΔElev.	0.497m	0.062m		
		Dist.	11163.718m	0.005m		
CP5340	CP5327	**Az.**	215°48'15.7605"	0°00'00.1222"	1:1555104	1:1555104
		ΔHt.	0.701m	0.022m		
		ΔElev.	0.595m	0.064m		
		Dist.	11882.603m	0.008m		
CP5340	CP5317	**Az.**	190°20'14.0696"	0°00'00.0619"	1:2309677	1:2309677
		ΔHt.	0.545m	0.026m		
		ΔElev.	0.443m	0.065m		
		Dist.	22958.170m	0.010m		
CP5340	CP5328	**Az.**	236°53'09.3010"	0°00'00.0778"	1:3149767	1:3149767
		ΔHt.	2.300m	0.021m		
		ΔElev.	2.088m	0.063m		
		Dist.	20821.999m	0.007m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5302	CP5333	**Az.**	230°02'08.8410"	0°00'00.1410"	1:914027	1:914027
		ΔHt.	1.419m	0.021m		
		ΔElev.	1.283m	0.064m		
		Dist.	10042.803m	0.011m		
CP5327	CP5317	**Az.**	167°37'55.8982"	0°00'00.0905"	1:1566587	1:1566587
		ΔHt.	-0.156m	0.022m		
		ΔElev.	-0.152m	0.065m		
		Dist.	13254.563m	0.008m		
CP5327	CP5328	**Az.**	260°33'32.4038"	0°00'00.1186"	1:2315658	1:2315658
		ΔHt.	1.599m	0.015m		
		ΔElev.	1.493m	0.063m		
		Dist.	10631.678m	0.005m		
CP5317	CP5328	**Az.**	310°03'53.1176"	0°00'00.0862"	1:2384631	1:2384631
		ΔHt.	1.755m	0.022m		
		ΔElev.	1.645m	0.065m		
		Dist.	17409.953m	0.007m		
CP5328	CP5330	**Az.**	286°10'12.8067"	0°00'00.1618"	1:1498379	1:1498379
		ΔHt.	2.181m	0.026m		
		ΔElev.	2.053m	0.068m		
		Dist.	13634.093m	0.009m		
CP5328	CP5329	**Az.**	271°57'58.5390"	0°00'00.3747"	1:511640	1:511640
		ΔHt.	-0.126m	0.025m		
		ΔElev.	-0.170m	0.067m		
		Dist.	4124.716m	0.008m		
CP5328	CP5332	**Az.**	305°02'39.0157"	0°00'00.1999"	1:971505	1:971505
		ΔHt.	0.306m	0.022m		
		ΔElev.	0.235m	0.066m		
		Dist.	7280.513m	0.007m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5328	CP5331	**Az.**	291°47'30.1546"	0°00'00.1510"	1:1348481	1:1348481
		ΔHt.	1.324m	0.023m		
		ΔElev.	1.221m	0.067m		
		Dist.	10507.862m	0.008m		
CP5328	CP5315	**Az.**	182°16'05.3330"	0°00'00.1668"	1:1139959	1:1139959
		ΔHt.	-0.581m	0.023m		
		ΔElev.	-0.546m	0.064m		
		Dist.	12869.420m	0.011m		
CP5328	CP5318	**Az.**	203°52'08.9004"	0°00'00.2950"	1:756628	1:756628
		ΔHt.	0.019m	0.023m		
		ΔElev.	0.005m	0.064m		
		Dist.	7993.752m	0.011m		
CP5328	CP5326	**Az.**	179°12'56.2723"	0°00'00.5220"	1:474521	1:474521
		ΔHt.	-1.242m	0.040m		
		ΔElev.	-1.225m	0.072m		
		Dist.	8105.236m	0.017m		
CP5330	CP5329	**Az.**	112°06'27.8369"	0°00'00.2346"	1:1043435	1:1043435
		ΔHt.	-2.307m	0.027m		
		ΔElev.	-2.223m	0.072m		
		Dist.	9688.486m	0.009m		
CP5330	CP5332	**Az.**	86°51'49.8466"	0°00'00.3088"	1:830429	1:830429
		ΔHt.	-1.876m	0.025m		
		ΔElev.	-1.818m	0.072m		
		Dist.	7144.385m	0.009m		
CP5330	CP5331	**Az.**	88°09'30.6505"	0°00'00.6941"	1:388944	1:388944
		ΔHt.	-0.858m	0.025m		
		ΔElev.	-0.831m	0.072m		
		Dist.	3339.359m	0.009m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5329	CP5332	**Az.**	335°30'32.4329"	0°00'00.2966"	1:670341	1:670341
		ΔHt.	0.432m	0.020m		
		ΔElev.	0.406m	0.071m		
		Dist.	4437.684m	0.007m		
CP5329	CP5331	**Az.**	303°41'30.9933"	0°00'00.2242"	1:872713	1:872713
		ΔHt.	1.450m	0.023m		
		ΔElev.	1.392m	0.071m		
		Dist.	6773.646m	0.008m		
CP5332	CP5331	**Az.**	265°45'36.6205"	0°00'00.3643"	1:585887	1:585887
		ΔHt.	1.018m	0.020m		
		ΔElev.	0.986m	0.070m		
		Dist.	3806.626m	0.006m		
CP5315	CP5318	**Az.**	333°50'28.7014"	0°00'00.2783"	1:520409	1:520409
		ΔHt.	0.600m	0.020m		
		ΔElev.	0.551m	0.066m		
		Dist.	6182.388m	0.012m		
CP5315	CP5326	**Az.**	7°25'48.3092"	0°00'00.8351"	1:256730	1:256730
		ΔHt.	-0.661m	0.040m		
		ΔElev.	-0.679m	0.073m		
		Dist.	4795.148m	0.019m		
CP5318	CP5326	**Az.**	103°20'34.7237"	0°00'01.1664"	1:194813	1:194813
		ΔHt.	-1.261m	0.039m		
		ΔElev.	-1.230m	0.073m		
		Dist.	3438.642m	0.018m		
CP5314	CP5322	**Az.**	333°00'11.4263"	0°00'00.2067"	1:1257130	1:1257130
		ΔHt.	-0.138m	0.014m		
		ΔElev.	-0.196m	0.064m		
		Dist.	6044.963m	0.005m		

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From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5314	CP5320	**Az.**	23°34'59.6769"	0°00'00.2446"	1:456645	1:456645
		ΔHt.	-0.147m	0.025m		
		ΔElev.	-0.170m	0.067m		
		Dist.	4946.478m	0.011m		
CP5314	CP5321	**Az.**	345°34'21.3622"	0°00'00.3187"	1:706492	1:706492
		ΔHt.	-0.651m	0.011m		
		ΔElev.	-0.678m	0.063m		
		Dist.	3007.898m	0.004m		
CP5322	CP5320	**Az.**	100°13'26.7551"	0°00'00.4402"	1:713701	1:713701
		ΔHt.	-0.008m	0.025m		
		ΔElev.	0.026m	0.067m		
		Dist.	4799.442m	0.007m		
CP5322	CP5321	**Az.**	141°06'06.3742"	0°00'00.3478"	1:805496	1:805496
		ΔHt.	-0.512m	0.012m		
		ΔElev.	-0.482m	0.063m		
		Dist.	3177.314m	0.004m		
CP5320	CP5321	**Az.**	239°18'15.6912"	0°00'00.4381"	1:320454	1:320454
		ΔHt.	-0.504m	0.024m		
		ΔElev.	-0.508m	0.067m		
		Dist.	3173.273m	0.010m		
CP5320	CP5319	**Az.**	87°16'04.2873"	0°00'00.5556"	1:378006	1:378006
		ΔHt.	-0.393m	0.043m		
		ΔElev.	-0.368m	0.082m		
		Dist.	4909.306m	0.013m		
CP5320	CP5323	**Az.**	325°04'34.7923"	0°00'00.8268"	1:160513	1:160513
		ΔHt.	0.043m	0.040m		
		ΔElev.	0.020m	0.081m		
		Dist.	2615.166m	0.016m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5320	CP5324	**Az.**	336°51'20.5322"	0°00'00.9887"	1:136378	1:136378
		ΔHt.	-0.183m	0.041m		
		ΔElev.	-0.203m	0.081m		
		Dist.	2287.280m	0.017m		
CP5319	CP5323	**Az.**	286°38'18.7803"	0°00'00.2816"	1:703992	1:703992
		ΔHt.	0.436m	0.024m		
		ΔElev.	0.388m	0.091m		
		Dist.	6679.819m	0.009m		
CP5319	CP5324	**Az.**	287°52'36.3874"	0°00'00.3363"	1:581001	1:581001
		ΔHt.	0.210m	0.027m		
		ΔElev.	0.165m	0.092m		
		Dist.	6096.360m	0.010m		
CP5323	CP5324	**Az.**	93°54'59.3320"	0°00'02.9015"	1:80466	1:80466
		ΔHt.	-0.226m	0.020m		
		ΔElev.	-0.223m	0.091m		
		Dist.	599.536m	0.007m		
CP5306	CP5313	**Az.**	329°25'45.7467"	0°00'00.0989"	1:1733876	1:1733876
		ΔHt.	0.614m	0.012m		
		ΔElev.	0.563m	0.060m		
		Dist.	7598.432m	0.004m		
CP5306	CP5303	**Az.**	47°45'18.8737"	0°00'00.1638"	1:1407707	1:1407707
		ΔHt.	-1.135m	0.011m		
		ΔElev.	-1.146m	0.061m		
		Dist.	4860.710m	0.003m		
CP5306	CP5304	**Az.**	54°00'40.5195"	0°00'00.2088"	1:1149752	1:1149752
		ΔHt.	-0.921m	0.010m		
		ΔElev.	-0.929m	0.061m		
		Dist.	3708.214m	0.003m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5306	CP5307	**Az.**	180°47'35.2797"	0°00'00.2531"	1:747031	1:747031
		ΔHt.	-0.674m	0.016m		
		ΔElev.	-0.660m	0.062m		
		Dist.	3682.569m	0.005m		
CP5306	CP5312	**Az.**	246°51'13.9101"	0°00'00.2178"	1:1030701	1:1030701
		ΔHt.	0.168m	0.015m		
		ΔElev.	0.173m	0.062m		
		Dist.	4530.907m	0.004m		
CP5306	CP5305	**Az.**	67°35'58.5425"	0°00'00.2663"	1:831124	1:831124
		ΔHt.	-0.890m	0.013m		
		ΔElev.	-0.896m	0.061m		
		Dist.	3283.733m	0.004m		
CP5313	CP5303	**Az.**	113°40'22.3117"	0°00'00.0957"	1:2200381	1:2200381
		ΔHt.	-1.748m	0.011m		
		ΔElev.	-1.709m	0.060m		
		Dist.	8149.596m	0.004m		
CP5313	CP5304	**Az.**	122°25'18.6020"	0°00'00.0882"	1:2214741	1:2214741
		ΔHt.	-1.534m	0.010m		
		ΔElev.	-1.492m	0.060m		
		Dist.	8134.246m	0.004m		
CP5303	CP5304	**Az.**	208°47'11.6720"	0°00'00.4928"	1:412195	1:412195
		ΔHt.	0.214m	0.009m		
		ΔElev.	0.217m	0.061m		
		Dist.	1242.144m	0.003m		
CP5307	CP5312	**Az.**	294°47'47.6339"	0°00'00.2451"	1:951250	1:951250
		ΔHt.	0.842m	0.017m		
		ΔElev.	0.833m	0.064m		
		Dist.	4533.171m	0.005m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5307	CP5305	**Az.**	32°02'02.1810"	0°00'00.1696"	1:1104124	1:1104124
		ΔHt.	-0.216m	0.017m		
		ΔElev.	-0.236m	0.062m		
		Dist.	5819.730m	0.005m		
CP5307	CP5309	**Az.**	89°03'14.5649"	0°00'00.1906"	1:1043542	1:1043542
		ΔHt.	-0.052m	0.018m		
		ΔElev.	-0.070m	0.062m		
		Dist.	6523.186m	0.006m		
CP5312	CP5305	**Az.**	67°08'55.3374"	0°00'00.1378"	1:1626039	1:1626039
		ΔHt.	-1.058m	0.016m		
		ΔElev.	-1.068m	0.062m		
		Dist.	7814.479m	0.005m		
CP5305	CP5311	**Az.**	130°47'29.7103"	0°00'00.3948"	1:657576	1:657576
		ΔHt.	-0.587m	0.009m		
		ΔElev.	-0.584m	0.061m		
		Dist.	1872.165m	0.003m		
CP5308	CP5310	**Az.**	60°15'10.5432"	0°00'00.2712"	1:910973	1:910973
		ΔHt.	-1.136m	0.016m		
		ΔElev.	-1.150m	0.063m		
		Dist.	5109.670m	0.006m		
CP5308	CP5309	**Az.**	88°57'15.5152"	0°00'00.2108"	1:1020299	1:1020299
		ΔHt.	-0.605m	0.014m		
		ΔElev.	-0.621m	0.062m		
		Dist.	5283.132m	0.005m		
CP5308	CP5311	**Az.**	41°25'38.6966"	0°00'00.2143"	1:1072343	1:1072343
		ΔHt.	-1.357m	0.013m		
		ΔElev.	-1.371m	0.062m		
		Dist.	4934.333m	0.005m		

HHD-FDEM LiDAR Support (E07066)

Network Adjustment Report

From Point	To Point		Components	A-posteriori Error (1.96σ)	Horiz. Precision (Ratio)	3D Precision (Ratio)
CP5310	CP5309	**Az.**	160°53'26.5954"	0°00'00.4104"	1:415868	1:415868
		ΔHt.	0.530m	0.014m		
		ΔElev.	0.529m	0.062m		
		Dist.	2581.396m	0.006m		
CP5310	CP5311	**Az.**	314°50'55.0441"	0°00'00.6385"	1:282343	1:282343
		ΔHt.	-0.221m	0.014m		
		ΔElev.	-0.221m	0.062m		
		Dist.	1651.735m	0.006m		
CP5309	CP5311	**Az.**	330°46'50.9561"	0°00'00.2314"	1:823187	1:823187
		ΔHt.	-0.751m	0.013m		
		ΔElev.	-0.751m	0.061m		
		Dist.	4129.601m	0.005m		

Recompute Report

Project : E07066-RTK

User name	david	**Date & Time**	10:28:04 AM 7/18/2008
Coordinate System	US State Plane 1983	**Zone**	Florida East 0901
Project Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD 88	**Geoid Model**	Geoid03_Grid7
Coordinate Units	US survey feet		
Distance Units	US survey feet		
Height Units	US survey feet		

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Point Derivations
Starting Points
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Closures

Closures have been detected for the following points

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Point Derivations

Observations or coordinates in red are out of tolerance. They have not been used to determine the coordinate of the point.

Resultant coordinates for point : CP1198

Northing	Easting	Elevation	Height
840390.830sft	791783.979sft	19.434sft	-63.002sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW19 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1192

Northing	Easting	Elevation	Height
905454.592sft	803485.887sft	12.315sft	-71.840sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW22 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1234

Northing	Easting	Elevation	Height
883812.774sft	819573.013sft	17.517sft	-66.309sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW35 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1219

Northing	Easting	Elevation	Height
864027.394sft	666956.033sft	18.671sft	-62.349sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW38 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1211

Northing	Easting	Elevation	Height
837800.836sft	711837.173sft	14.656sft	-66.890sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW42 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1222

Northing	Easting	Elevation	Height
879031.369sft	640404.445sft	18.707sft	-62.021sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW46 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1242

Northing	Easting	Elevation	Height
872209.211sft	601061.441sft	21.308sft	-59.012sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW75 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1224

Northing	Easting	Elevation	Height
900952.871sft	599882.471sft	16.587sft	-63.881sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW84 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1216

Northing	Easting	Elevation	Height
787011.754sft	688854.028sft	12.331sft	-68.927sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW93 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1203

Northing	Easting	Elevation	Height
750752.203sft	791243.944sft	13.533sft	-68.245sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW128 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1199

Northing	Easting	Elevation	Height
810380.870sft	814205.473sft	14.156sft	-68.271sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW132 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1212

Northing	Easting	Elevation	Height
795568.389sft	711200.876sft	16.764sft	-64.682sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW137 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1052

Northing	Easting	Elevation	Height
793294.638sft	837191.604sft	16.471sft	-66.148sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW138 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1237

Northing	Easting	Elevation	Height
795016.726sft	760130.086sft	13.105sft	-68.714sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW140 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1110

Northing	Easting	Elevation	Height
1013662.031sft	629140.227sft	25.970sft	-57.887sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW173 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1180

Northing	Easting	Elevation	Height
1013652.341sft	683007.191sft	20.769sft	-65.049sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW181 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1170

Northing	Easting	Elevation	Height
963389.376sft	622882.154sft	16.084sft	-65.938sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW187 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1230

Northing	Easting	Elevation	Height
995269.146sft	633195.292sft	23.044sft	-60.348sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW191 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1164

Northing	Easting	Elevation	Height
931232.728sft	616229.232sft	17.231sft	-63.855sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW194 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1184

Northing	Easting	Elevation	Height
1031624.298sft	702633.797sft	19.636sft	-67.231sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW220 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : CP1196

Northing	Easting	Elevation	Height
853658.902sft	820127.674sft	12.232sft	-70.876sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CW284 Text file (Merrick HHD statics-llh-2.CSV)	NEeh	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	0.000sft

Resultant coordinates for point : 10002

Northing	Easting	Elevation	Height
879899.700sft	657899.974sft	18.819sft	-62.194sft

ID	Used to calc.	Status	Δ North	Δ East	Distance (Horiz)	Δ Elevation	Δ Height
CG950 DC file (E07066SUGARCANE-3.dc)	NEe	Enabled	0.000sft	0.000sft	0.000sft	0.000sft	-0.028sft
B63 (CP1219-10002)	h	Enabled	-0.009sft	0.000sft	0.009sft	0.028sft	0.000sft

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Starting Points

Starting Point
CP1198
CP1192
CP1234
CP1219
CP1211
CP1222
CP1242
CP1224
CP1216
CP1203
CP1199
CP1212
CP1052
CP1237
CP1110
CP1180
CP1170
CP1230
CP1164
CP1184
CP1196

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Survey Data

Observations

GPS Baselines

ID	Source	From Pt	To Point	Solution/Quality	Ratio	Reference Variance	RMS	Slope Distance
B63	DC file (E07066SUGARCANE-2.dc)	CP1219	10002	Fixed	?	?	0.003m	18275.115sft

Coordinates

ID	Point Name	Source	Northing	Easting	Height	Elevation
CG950	10002	DC file (E07066SUGARCANE-3.dc)	879899.700sft	657899.974sft	?	18.819sft

ID	Point Name	Source	Latitude	Longitude	Height	Elevation
C19(geod-WGS)	CP1198	Text file (Merrick HHD statics-llh-2.CSV)	26°38'42.40180"N	80°35'05.30729"W	-63.002sft	?
C22(geod-WGS)	CP1192	Text file (Merrick HHD statics-llh-2.CSV)	26°49'26.37441"N	80°32'53.79566"W	-71.840sft	?
C35(geod-WGS)	CP1234	Text file (Merrick HHD statics-llh-2.CSV)	26°45'51.44808"N	80°29'57.16206"W	-66.309sft	?
C38(geod-WGS)	CP1219	Text file (Merrick HHD statics-llh-2.CSV)	26°42'38.66669"N	80°58'01.01736"W	-62.349sft	?
C42(geod-WGS)	CP1211	Text file (Merrick HHD statics-llh-2.CSV)	26°38'18.56525"N	80°49'46.46575"W	-66.890sft	?
C46(geod-WGS)	CP1222	Text file (Merrick HHD statics-llh-2.CSV)	26°45'07.24899"N	81°02'53.88487"W	-62.021sft	?
C75(geod-WGS)	CP1242	Text file (Merrick HHD statics-llh-2.CSV)	26°43'59.35094"N	81°10'07.80626"W	-59.012sft	?
C84(geod-WGS)	CP1224	Text file (Merrick HHD statics-llh-2.CSV)	26°48'44.00706"N	81°10'21.24028"W	-63.881sft	?
C93(geod-WGS)	CP1216	Text file (Merrick HHD statics-llh-2.CSV)	26°29'55.78475"N	80°54'00.19499"W	-68.927sft	?

C128(geod-WGS)	CP1203	Text file (Merrick HHD statics-llh-2.CSV)	26°23'54.64299"N	80°35'14.43638"W	-68.245sft	? ?
C132(geod-WGS)	CP1199	Text file (Merrick HHD statics-llh-2.CSV)	26°33'44.40976"N	80°30'59.44746"W	-68.271sft	? ?
C137(geod-WGS)	CP1212	Text file (Merrick HHD statics-llh-2.CSV)	26°31'20.30004"N	80°49'54.09001"W	-64.682sft	? ?
C138(geod-WGS)	CP1052	Text file (Merrick HHD statics-llh-2.CSV)	26°30'54.27104"N	80°26'47.11207"W	-66.148sft	? ?
C140(geod-WGS)	CP1237	Text file (Merrick HHD statics-llh-2.CSV)	26°31'13.91809"N	80°40'55.41434"W	-68.714sft	? ?
C173(geod-WGS)	CP1110	Text file (Merrick HHD statics-llh-2.CSV)	27°07'20.52170"N	81°04'59.12454"W	-57.887sft	? ?
C181(geod-WGS)	CP1180	Text file (Merrick HHD statics-llh-2.CSV)	27°07'20.42695"N	80°55'02.93321"W	-65.049sft	? ?
C187(geod-WGS)	CP1170	Text file (Merrick HHD statics-llh-2.CSV)	26°59'02.60346"N	81°06'07.93644"W	-65.938sft	? ?
C191(geod-WGS)	CP1230	Text file (Merrick HHD statics-llh-2.CSV)	27°04'18.39430"N	81°04'14.12948"W	-60.348sft	? ?
C194(geod-WGS)	CP1164	Text file (Merrick HHD statics-llh-2.CSV)	26°53'44.07826"N	81°07'21.13518"W	-63.855sft	? ?
C220(geod-WGS)	CP1184	Text file (Merrick HHD statics-llh-2.CSV)	27°10'18.23433"N	80°51'25.48300"W	-67.231sft	? ?
C284(geod-WGS)	CP1196	Text file (Merrick HHD statics-llh-2.CSV)	26°40'52.79626"N	80°29'52.35380"W	-70.876sft	? ?

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GPS Vector data

Project : E07066-RTK

User name	david	**Date & Time**	1:51:05 PM 7/21/2008
Coordinate System	US State Plane 1983	**Zone**	Florida East 0901
Project Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD 88	**Geoid Model**	Geoid03_Grid7
Coordinate Units	Meters		
Distance Units	US survey feet		
Height Units	Meters		

From Point Name	To Point Name	DeltaX	DeltaY	DeltaZ	Slope Distance	RMS	Ratio	Ref Var
CP1219	10000	19.116m	16.811m	25.939m	36.344m	0.002m	?	?
CP1219	11000	19.115m	16.816m	25.939m	36.346m	0.003m	?	?
CP1219	10001	-2795.603m	-481.458m	-75.739m	2837.770m	0.009m	?	?
CP1219	11001	-2795.611m	-481.451m	-75.737m	2837.776m	0.006m	?	?
CP1219	10002	-3066.792m	1716.942m	4321.431m	5570.266m	0.003m	?	?
CP1222	11002	5248.867m	950.408m	237.136m	5339.486m	0.003m	?	?
CP1222	10003	1574.755m	1637.708m	2714.190m	3539.600m	0.007m	?	?
CP1222	11003	1574.768m	1637.700m	2714.192m	3539.604m	0.001m	?	?
CP1242	10004	3896.615m	869.022m	515.155m	4025.443m	0.007m	?	?
CP1242	11004	-2429.085m	1404.787m	3489.905m	4478.093m	0.005m	?	?
CP1242	10005	-2429.073m	1404.802m	3489.903m	4478.089m	?	?	?
CP1224	11005	-2481.543m	1036.803m	2780.408m	3868.292m	0.005m	?	?
CP1224	10006	-2942.487m	1285.512m	3403.808m	4679.389m	0.004m	?	?
CP1224	11006	-2942.493m	1285.532m	3403.786m	4679.382m	0.004m	?	?
CP1164	10007	75.746m	-521.788m	-1038.462m	1164.648m	0.002m	?	?
CP1164	11007	-4078.912m	-531.735m	203.365m	4118.449m	?	?	?
CP1164	10008	-4078.919m	-531.778m	203.376m	4118.462m	0.003m	?	?
CP1170	11008	-813.702m	-439.358m	-606.178m	1105.712m	0.005m	?	?
CP1170	10009	-857.839m	1724.838m	3606.199m	4088.475m	0.006m	?	?
CP1170	11009	-857.804m	1724.792m	3606.194m	4088.444m	0.003m	?	?
CP1170	10010	-965.294m	1214.374m	2649.524m	3070.256m	0.004m	?	?
CP1170	11010	-965.387m	1214.399m	2649.577m	3070.341m	0.004m	?	?
CP1184	10011	-945.353m	-1245.285m	-2101.451m	2619.260m	0.010m	?	?
CP1184	11011	-1914.406m	-1017.629m	-1366.712m	2562.893m	0.002m	?	?
CP1184	10012	-1914.370m	-1017.672m	-1366.675m	2562.863m	0.002m	?	?
CP1184	11013	-3273.699m	-294.586m	445.928m	3317.037m	0.002m	?	?
CP1184	10013	-3273.685m	-294.594m	445.930m	3317.024m	0.001m	?	?
CP1184	10014	-4295.119m	155.509m	1624.120m	4594.562m	0.009m	?	?
CP1184	11014	-4295.099m	155.490m	1624.109m	4594.538m	0.004m	?	?

CP1184	11015	-16.166m	1490.851m	2868.754m	3233.056m	0.007m	?	?
CP1184	10015	-16.158m	1490.802m	2868.760m	3233.038m	0.003m	?	?
CP1184	10016	-37.351m	-8.779m	-8.194m	39.234m	0.001m	?	?
CP1184	11016	-37.376m	-8.774m	-8.211m	39.260m	0.003m	?	?
CP1184	11017	582.469m	1074.101m	1880.326m	2242.452m	0.009m	?	?
CP1184	10017	582.476m	1074.060m	1880.349m	2242.453m	0.005m	?	?
CP1184	10018	-3835.028m	-50.667m	1085.242m	3985.945m	0.011m	?	?
CP1184	11018	-3835.031m	-50.661m	1085.220m	3985.942m	0.007m	?	?
CP1180	11019	-2387.132m	-1115.435m	-1416.035m	2991.278m	0.003m	?	?
CP1180	11020	-1030.118m	1058.350m	2353.395m	2778.438m	0.001m	?	?
CP1180	10020	-1029.918m	1057.987m	2353.514m	2778.326m	0.010m	?	?
CP1180	10021	-1898.577m	1319.828m	3124.924m	3887.376m	0.002m	?	?
CP1180	11021	-1898.580m	1319.864m	3124.914m	3887.381m	0.007m	?	?
CP1230	11022	-4248.131m	1150.855m	3511.290m	5630.297m	0.003m	?	?
CP1230	11023	-4103.371m	506.273m	2222.869m	4694.158m	0.004m	?	?
CP1230	10023	-4103.372m	506.268m	2222.859m	4694.153m	0.003m	?	?
CP1230	10024	-1970.492m	455.340m	1477.146m	2504.423m	0.009m	?	?
CP1230	11024	-1970.483m	455.339m	1477.152m	2504.419m	0.004m	?	?
CP1230	11025	-1230.385m	1356.665m	2993.575m	3509.398m	0.002m	?	?
CP1230	10025	-1230.379m	1356.641m	2993.579m	3509.391m	0.002m	?	?
CP1230	10026	522.641m	-1820.368m	-3684.306m	4142.584m	0.003m	?	?
CP1230	11026	522.646m	-1820.363m	-3684.307m	4142.583m	0.003m	?	?
CP1230	11027	523.827m	-636.024m	-1391.915m	1617.513m	0.005m	?	?
CP1230	10027	523.825m	-636.020m	-1391.912m	1617.508m	0.002m	?	?
CP1110	10028	-2627.687m	-1178.742m	-1479.459m	3237.742m	0.002m	?	?
CP1110	10029	-65.569m	12.108m	42.260m	78.942m	0.005m	?	?
CP1110	11029	-65.565m	12.115m	42.264m	78.942m	0.005m	?	?
CP1110	11030	-321.330m	200.226m	482.007m	612.923m	0.003m	?	?
CP1110	10030	-321.319m	200.250m	481.999m	612.918m	0.005m	?	?
CP1219	12000	1156.343m	-1976.366m	-4247.865m	4825.713m	0.003m	?	?
CP1219	13000	1156.342m	-1976.359m	-4247.851m	4825.698m	0.005m	?	?
CP1219	12001	-2795.817m	-2467.128m	-3975.236m	5450.304m	0.007m	?	?
CP1219	13001	-2795.816m	-2467.134m	-3975.232m	5450.304m	0.002m	?	?
CP1219	12002	-6404.923m	-1060.920m	-92.231m	6492.850m	0.004m	?	?
CP1219	13002	-6404.925m	-1060.915m	-92.235m	6492.851m	0.002m	?	?
CP1219	12003	-3122.738m	1645.447m	4197.158m	5484.079m	0.003m	?	?
CP1219	13003	-3122.741m	1645.436m	4197.169m	5484.086m	0.003m	?	?
CP1222	10003	5248.887m	950.385m	237.135m	5339.501m	0.002m	?	?
CP1222	12004	1649.261m	313.668m	103.735m	1682.026m	0.005m	?	?
CP1222	13004	1649.268m	313.696m	103.737m	1682.038m	0.003m	?	?
CP1242	10004	3896.610m	869.002m	515.160m	4025.435m	0.005m	?	?
CP1242	12005	3623.478m	1578.271m	1987.288m	4423.782m	0.005m	?	?
CP1242	13005	3623.485m	1578.255m	1987.296m	4423.785m	0.004m	?	?
CP1224	10005	-2481.572m	1036.824m	2780.420m	3868.325m	0.005m	?	?
CP1224	12006	4719.988m	1453.243m	1401.529m	5133.663m	0.003m	?	?
CP1224	13006	4719.980m	1453.238m	1401.540m	5133.656m	0.008m	?	?
CP1164	12007	75.758m	-521.778m	-1038.453m	1164.636m	0.003m	?	?

CP1164	12008	-1515.721m	-788.498m	-1075.864m	2019.065m	0.004m	?	?
CP1164	13008	-1515.717m	-788.509m	-1075.859m	2019.064m	0.009m	?	?
CP1164	13009	-1667.879m	95.856m	692.600m	1808.509m	0.009m	?	?
CP1164	12009	-1667.872m	95.886m	692.584m	1808.498m	0.008m	?	?
CP1170	12010	-813.709m	-439.350m	-606.189m	1105.720m	0.006m	?	?
CP1170	12011	1016.261m	598.086m	849.900m	1453.555m	0.003m	?	?
CP1170	13011	1016.263m	598.077m	849.908m	1453.558m	0.003m	?	?
CP1216	12012	-5016.255m	1033.416m	3633.874m	6279.793m	0.005m	?	?
CP1216	12013	-132.635m	4791.395m	9510.705m	10650.285m	0.005m	?	?
CP1216	13013	-132.637m	4791.400m	9510.706m	10650.288m	0.004m	?	?
CP1216	12014	1351.496m	1683.450m	2901.034m	3616.150m	0.004m	?	?
CP1216	13014	1351.496m	1683.444m	2901.033m	3616.147m	0.005m	?	?
CP1216	12015	1728.934m	-465.146m	-1473.000m	2318.470m	0.004m	?	?
CP1216	13015	1728.935m	-465.144m	-1473.000m	2318.470m	0.004m	?	?
CP1211	12016	2349.401m	3312.732m	5765.537m	7052.326m	0.006m	?	?
CP1211	12017	308.778m	803.281m	1478.513m	1710.732m	0.003m	?	?
CP1211	13017	308.778m	803.282m	1478.515m	1710.735m	0.003m	?	?
CP1211	12018	-443.339m	-1507.087m	-2830.731m	3237.421m	0.004m	?	?
CP1211	13018	-443.339m	-1507.087m	-2830.735m	3237.425m	0.004m	?	?
CP1211	12019	4992.091m	-588.341m	-2754.210m	5731.735m	0.004m	?	?
CP1211	13019	4992.089m	-588.339m	-2754.218m	5731.737m	0.005m	?	?
CP1211	12020	9022.350m	39.924m	-2808.296m	9449.387m	0.006m	?	?
CP1211	13020	9022.350m	39.918m	-2808.300m	9449.388m	0.005m	?	?
CP1211	12021	8623.857m	2132.216m	1438.494m	8999.251m	0.004m	?	?
CP1211	13021	8623.855m	2132.224m	1438.490m	8999.250m	0.005m	?	?
CP1211	12022	4644.050m	1502.662m	1473.212m	5098.583m	0.006m	?	?
CP1211	13022	4644.050m	1502.646m	1473.218m	5098.579m	0.004m	?	?
CP1212	12023	-1378.744m	1966.875m	4328.180m	4950.017m	0.008m	?	?
CP1212	12024	2702.744m	-3826.445m	-8454.392m	9665.571m	0.005m	?	?
CP1212	13024	2702.744m	-3826.444m	-8454.397m	9665.574m	0.007m	?	?
CP1212	12025	1417.504m	-1922.558m	-4265.331m	4888.619m	0.006m	?	?
CP1212	13025	1417.506m	-1922.557m	-4265.333m	4888.621m	0.004m	?	?
CP1212	12026	33.614m	36.678m	56.923m	75.600m	0.002m	?	?
CP1212	13026	33.613m	36.677m	56.925m	75.601m	0.001m	?	?
CP1237	12027	-1333.937m	2607.092m	5579.788m	6301.615m	0.004m	?	?
CP1237	12028	-5981.182m	1289.441m	4477.877m	7582.123m	0.010m	?	?
CP1237	13028	-5981.181m	1289.447m	4477.875m	7582.122m	0.004m	?	?
CP1237	12029	-5568.653m	-801.859m	212.737m	5630.109m	0.005m	?	?
CP1237	13029	-5568.652m	-801.858m	212.736m	5630.109m	0.004m	?	?
CP1237	12030	-409.278m	-2159.682m	-4145.088m	4691.853m	0.005m	?	?
CP1237	13030	-409.270m	-2159.703m	-4145.059m	4691.837m	0.004m	?	?
CP1237	12031	-1.964m	-4199.498m	-8321.950m	9321.514m	0.007m	?	?
CP1237	13031	-1.968m	-4199.470m	-8321.960m	9321.511m	0.005m	?	?
CP1237	12032	-4718.425m	-4976.648m	-8333.962m	10792.844m	0.006m	?	?
CP1237	13032	-4718.428m	-4976.623m	-8333.964m	10792.836m	0.005m	?	?
CP1237	12033	-5197.120m	-2927.188m	-4114.215m	7246.051m	0.005m	?	?
CP1237	13033	-5197.120m	-2927.185m	-4114.216m	7246.050m	0.003m	?	?

CP1237	12034	4244.585m	-1710.760m	-4771.159m	6611.139m	0.006m	?	?
CP1237	13034	4244.583m	-1710.754m	-4771.159m	6611.136m	0.003m	?	?
CP1237	12035	1076.164m	-280.444m	-907.669m	1435.493m	0.003m	?	?
CP1237	13035	1076.166m	-280.449m	-907.668m	1435.495m	0.003m	?	?
CP1237	12036	5838.256m	500.804m	-914.151m	5930.574m	0.006m	?	?
CP1237	13036	5838.262m	500.811m	-914.146m	5930.580m	0.009m	?	?
CP1237	12037	10093.805m	1225.553m	-874.335m	10205.456m	0.004m	?	?
CP1237	13037	10093.808m	1225.543m	-874.332m	10205.457m	0.007m	?	?
CP1203	12038	6233.711m	-2644.065m	-7326.064m	9976.043m	0.004m	?	?
CP1203	12039	5157.772m	-2108.495m	-5905.232m	8119.121m	0.005m	?	?
CP1203	13039	5157.777m	-2108.499m	-5905.221m	8119.117m	0.004m	?	?
CP1203	12040	7527.134m	314.993m	-1866.143m	7761.408m	0.005m	?	?
CP1203	13040	7527.136m	314.992m	-1866.143m	7761.410m	0.004m	?	?
CP1203	12041	-2377.785m	1139.183m	3040.012m	4024.086m	0.004m	?	?
CP1203	13041	-2377.785m	1139.172m	3040.018m	4024.088m	0.004m	?	?
CP1203	12042	4086.281m	1839.372m	2302.611m	5038.154m	0.003m	?	?
CP1203	13042	4086.259m	1839.355m	2302.603m	5038.126m	0.004m	?	?
CP1192	12046	-6246.530m	-1613.044m	-1122.766m	6548.408m	0.006m	?	?
CP1192	12047	-6999.576m	-1707.621m	-1068.786m	7283.703m	0.004m	?	?
CP1192	13047	-6999.578m	-1707.620m	-1068.781m	7283.705m	0.006m	?	?
CP1192	12048	-6089.338m	-2673.449m	-3247.570m	7400.951m	0.006m	?	?
CP1192	13048	-6089.337m	-2673.441m	-3247.581m	7400.952m	0.010m	?	?
CP1192	12049	-2820.130m	-2496.510m	-3960.342m	5465.346m	0.005m	?	?
CP1192	13049	-2820.125m	-2496.525m	-3960.340m	5465.349m	0.004m	?	?
CP1192	12050	-6319.417m	-4907.471m	-7543.466m	10996.462m	0.006m	?	?
CP1192	13050	-6319.423m	-4907.452m	-7543.477m	10996.465m	0.003m	?	?
CP1192	12051	-2380.624m	-4263.808m	-7559.923m	8999.992m	0.004m	?	?
CP1192	13051	-2380.631m	-4263.798m	-7559.933m	8999.998m	0.004m	?	?
CP1192	12052	-3817.065m	-1179.554m	-1066.324m	4135.019m	0.004m	?	?
CP1192	13052	-3817.057m	-1179.552m	-1066.323m	4135.011m	0.003m	?	?
CP1192	12053	-3239.552m	351.294m	1732.962m	3690.700m	0.002m	?	?
CP1192	13053	-3239.555m	351.283m	1732.963m	3690.701m	0.003m	?	?
CP1192	12054	-3536.264m	2144.069m	5322.272m	6740.087m	0.005m	?	?
CP1192	13054	-3536.268m	2144.058m	5322.273m	6740.086m	0.004m	?	?
CP1192	12055	-3704.137m	3221.381m	7470.584m	8939.103m	0.005m	?	?
CP1192	13055	-3704.136m	3221.379m	7470.582m	8939.100m	0.004m	?	?
CP1192	12056	923.703m	3944.206m	7382.288m	8420.698m	0.004m	?	?
CP1192	13056	923.711m	3944.204m	7382.285m	8420.696m	0.004m	?	?
CP1192	12057	2713.159m	3202.524m	5357.878m	6806.192m	0.004m	?	?
CP1192	12058	8022.922m	755.127m	-1146.069m	8139.470m	0.003m	?	?
CP1192	13058	8022.915m	755.123m	-1146.073m	8139.463m	?	?	?
CP1234	12059	2435.750m	4315.021m	7624.600m	9093.229m	0.005m	?	?
CP1234	12060	2912.446m	1465.249m	1902.763m	3774.891m	0.005m	?	?
CP1234	13060	2912.448m	1465.245m	1902.764m	3774.892m	0.005m	?	?
CP1234	12061	-2574.686m	627.090m	2060.941m	3357.042m	0.005m	?	?
CP1234	13061	-2574.693m	627.093m	2060.937m	3357.044m	0.004m	?	?
CP1234	12062	-2770.961m	1982.861m	4772.366m	5863.910m	0.006m	?	?

CP1234	13062	-2770.963m	1982.866m	4772.366m	5863.912m	0.005m	?	?
CP1234	12063	-3100.238m	3392.978m	7629.902m	8907.255m	0.004m	?	?
CP1234	13063	-3100.240m	3392.969m	7629.911m	8907.259m	0.003m	?	?
CP1196	12064	6566.031m	2586.119m	2909.495m	7633.213m	0.005m	?	?
CP1196	12065	-3235.471m	3910.121m	8717.000m	10086.793m	0.005m	?	?
CP1196	13065	-3235.479m	3910.112m	8717.001m	10086.794m	0.003m	?	?
CP1196	12066	512.802m	1648.148m	3061.911m	3514.919m	0.004m	?	?
CP1196	13066	512.799m	1648.161m	3061.904m	3514.919m	0.005m	?	?
CP1196	12067	-11411.435m	-402.293m	2934.149m	11789.484m	0.006m	?	?
CP1196	13067	-11411.431m	-402.289m	2934.140m	11789.477m	0.004m	?	?
CP1196	12068	-5796.946m	575.171m	3023.594m	6563.347m	0.006m	?	?
CP1196	13068	-5796.954m	575.162m	3023.597m	6563.355m	0.005m	?	?
CP1196	12069	9941.038m	1517.006m	-308.157m	10060.840m	0.004m	?	?
CP1196	13069	9941.040m	1517.008m	-308.167m	10060.843m	0.004m	?	?
CP1196	12070	25.424m	-121.395m	-246.325m	275.788m	?	?	?
CP1196	13070	25.426m	-121.396m	-246.323m	275.787m	0.002m	?	?
CP1198	12071	8239.957m	3200.702m	3585.336m	9539.183m	0.004m	?	?
CP1198	12072	2834.570m	2144.239m	3280.682m	4836.882m	0.004m	?	?
CP1198	13072	2834.572m	2144.239m	3280.679m	4836.881m	0.006m	?	?
CP1198	12073	-2951.585m	1386.788m	3679.251m	4916.494m	0.005m	?	?
CP1198	13073	-2951.588m	1386.784m	3679.259m	4916.502m	0.004m	?	?
CP1198	12074	-8638.068m	1924.179m	6571.743m	11022.998m	?	?	?
CP1198	13074	-8638.072m	1924.181m	6571.741m	11023.001m	0.003m	?	?
CP1198	12075	-6847.056m	740.781m	3671.304m	7804.447m	0.004m	?	?
CP1198	13075	-6847.045m	740.753m	3671.323m	7804.445m	?	?	?
CP1198	12076	-2942.956m	-256.390m	447.384m	2987.788m	0.004m	?	?
CP1198	13076	-2942.955m	-256.390m	447.377m	2987.787m	0.004m	?	?
CP1198	12077	4215.770m	923.719m	431.386m	4337.288m	0.005m	?	?
CP1198	13077	4215.768m	923.729m	431.387m	4337.289m	0.004m	?	?
CP1198	12078	4512.286m	-1584.383m	-4601.378m	6636.541m	0.006m	?	?
CP1198	13078	4512.276m	-1584.374m	-4601.374m	6636.529m	0.003m	?	?
CP1198	12079	3748.968m	-2811.912m	-6770.315m	8234.001m	0.004m	?	?
CP1198	13079	3748.963m	-2811.922m	-6770.318m	8234.005m	0.005m	?	?
CP1198	12080	-3409.751m	-2890.899m	-4586.270m	6404.496m	0.005m	?	?
CP1198	13080	-3409.748m	-2890.897m	-4586.267m	6404.491m	0.004m	?	?
CP1198	12081	-3194.159m	-4313.165m	-7460.812m	9190.743m	0.003m	?	?
CP1198	13081	-3194.163m	-4313.164m	-7460.813m	9190.745m	0.003m	?	?
CP1052	12082	-577.883m	3810.572m	7709.990m	8619.649m	0.005m	?	?
CP1052	12083	-276.552m	1239.372m	2535.031m	2835.296m	0.004m	?	?
CP1052	13083	-276.555m	1239.383m	2535.028m	2835.299m	0.003m	?	?
CP1052	12084	-4853.506m	1947.909m	5449.831m	7553.246m	0.005m	?	?
CP1052	13084	-4853.506m	1947.897m	5449.838m	7553.249m	0.004m	?	?
CP1052	12085	-760.961m	4070.983m	8280.261m	9258.223m	0.005m	?	?
CP1052	13085	-760.972m	4070.980m	8280.261m	9258.222m	0.004m	?	?
CP1199	12086	7641.038m	-3271.003m	-8990.189m	12243.709m	0.004m	?	?
CP1199	12087	6823.791m	-2949.019m	-8092.303m	10988.457m	0.004m	?	?
CP1199	13087	6823.794m	-2949.020m	-8092.305m	10988.462m	0.005m	?	?

CP1199	12088	-2760.055m	-4960.301m	-8899.651m	10555.865m	0.004m	?	?
CP1199	13088	-2760.050m	-4960.293m	-8899.654m	10555.862m	0.003m	?	?
CP1199	12089	-1452.606m	-2781.196m	-5018.945m	5919.030m	0.005m	?	?
CP1199	13089	-1452.608m	-2781.203m	-5018.943m	5919.033m	0.004m	?	?
CP1199	12090	2496.567m	-2124.666m	-5025.359m	6000.108m	0.004m	?	?
CP1199	13090	2496.570m	-2124.662m	-5025.360m	6000.108m	0.005m	?	?
CP1199	12091	-899.954m	-1064.839m	-1809.162m	2284.046m	0.004m	?	?
CP1199	13091	-899.954m	-1064.836m	-1809.165m	2284.047m	0.004m	?	?
CP1199	12092	4265.907m	-6295.982m	-13875.566m	15823.043m	0.006m	?	?
CP1199	13092	4265.905m	-6295.976m	-13875.566m	15823.040m	0.005m	?	?
CP1199	12093	4446.207m	-6294.022m	-13923.301m	15913.572m	0.005m	?	?

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SOKKIA

07-22 FIELD BOOK

LIDAR SURVEY

LAKE

OKEECHOBEE

E07066
ELEV. TRANS
MERRICK

W. Wright
C. Snow

Sunny/80°

E07066

474 - CP 1137

B.S.	+	HI	-	ELEV
474	5.02	29.81		24.79
CP1137	11.02	29.63	11.20	8.61
474			4.84	24.79

E=0.00

NAVD 88

PAHOKEE - CP 1138

B.S.	+	HI	-	ELEV
PAHOKEE	4.96	41.45		36.49
CP1138	5.25	42.09	4.61	36.84
PAHOKEE			5.62	36.47

E=0.02

NAVD 88

L 07CGG.
FCE 107 - CP1141

Loc	+	HI	-	ELEV	
FCE107	12.44	30.80		18.36	
△	7.57	26.01	12.36	18.44	
CP1141	14.00	26.06	13.95	12.06	
△	12.60	31.15	7.51	18.55	
FCE107			12.75	18.40	E0.04

NAVD 88

S487 - CP1234

Loc	+	HI	-	ELEV	
S487	9.83	23.13		13.30	
CP1234	5.23	22.89	5.47	17.66	
S487			9.58	13.31	E=0.01

NAVD 88

E07066
Merrick
08/30/07

HEN47 - CP1067

Desc	+	HI	-	ELEV	
HEN47	4.90	25.45		20.55	
CP1067	4.48	25.26	4.67	20.78	
HEN47			4.70	20.56	E-0.01

NAVD 88

E0706G
10/1/07
ELEV TRANS
MERRICK

W. Wright
G. Gizowski

cloudy / 80°

E07066

MS30 – CP 1078

Desc	+	HT	–	ELEV
MS30	9.11	32.47		23.36
CP1078	6.94	32.70	6.71	25.76
MS30			9.34	23.36

NAVD 88

MI-1 – CP 1211

Desc	–	HT	–	ELEV
MI-1	4.59	22.76		18.17
CP1211	7.86	22.50	8.12	14.64
MI-1			4.33	18.17

NAVD 88

E0706G
Merrick
10/2/07
ELEV TRANS

W. Wright
G. Gizowski

Partly cloudy 183°

E0706G

RSS - CP 1059

Desc	+	HI	-	ELEV	
BSS	8.09	20.64		12.55	
CP1059	4.01	20.44	4.21	16.43	
RSS			7.89	12.55	

NAVD 88

N410X - CP 1056

Desc	+	HI	-	ELEV	
N410X	7.15	19.85		12.70	
CP1056	5.06	19.78	5.31	14.72	
N411X			6.91	26.69	E0.01

NAVD 88

P 524 - CP1155

Desc	+	HI	-	ELEV	
P 524	3.08	36.66		33.58	
CP1155	20.59	37.04	20.21	16.45	
PS24			3.45	33.59	E0.01

NAVD 88

E07066
MERRICK
ELEV TRANS

W Wright
C EVANS

11/6/07
Sunny/76°

E07066

DS67 - CP1054

Desc	+	HI	-	ELEV	
DS67	6.53	23.92		17.39	
CP1054	3.61	23.72	3.81	20.11	
DS67			6.33	17.39	E=0.00

NAVD 88

FCE1559 - CP1053

Desc	+	HI	-	ELEV	
FCE1559	12.20	27.05		14.85	
CP1053	1.21	26.77	1.49	25.56	
FCE1559			11.92	14.85	E=0.00

NAVD 88

PB25 - CP1051

Desc	+	HI	-	ELEV	
PB25	4.82	24.21		19.39	
CP1051	9.19	24.39	9.01	15.20	
PB25			5.01	19.38	E=0.01

NAVD 88

E07066
MERRICK
HIATUS - CP1205

Desc	+	HI	-	ELEV	
HIATUS	5.04	20.51		15.47	
CP1205	7.11	2034	7.28	13.23	
HIATUS			4.87	15.47	E: 0.00

E070GG
MERRICK
ELEV TRANS

W. Wright
C. EVANS

11/7/07
Sunny/80°

E07066

LO 15 → CP 1146

Desc	+	HI	-	ELEV	
LO 15	21.11	42.29		21.18	
▲	2.59	2.38	21.08	21.21	
CP 1146	6.57	23.96	6.41	17.39	
▲	21.09	42.23	2.82	21.14	
LO 15			21.05	21.18	E=0.00

NAVD 88

E070066
MERRICK
ELEV TRANS

W. Wright
C. EVANS

11/8/07
Sunny / 72°

EO7066
B-49 to CP1058

Desc	+	HI	-	ELEV	
B-49	4.58	26.52		21.94	
CP1058	9.79	26.37	9.94	16.58	
B-49			4.43	21.94	E=0.00

NAVD 88

LS35-CP1069

Desc	+	HI	-	ELEV	
LS35	7.20	33.17		25.97	
CP1069	7.15	33.01	7.31	25.86	
LS35			7.04	25.97	E=0.00

NAVD 88

HS35-CP1068

Desc	+	HI	-	ELEV	
HS35	7.35	29.87		22.52	
CP1068	5.39	29.65	5.61	24.26	
HS35			7.13	22.52	E=0.00

NAVD 88

E07066
ELEV TRANS
HEN 23 to CP 1215

Desc.	+	HI	-	ELEV	
HEN23	4.23	29.74		25.51	
CP1215	13.18	29.46	13.46	16.28	
HEN23			3.95	25.51	E=0.00

NAVD 88

E070GG
12/6/07
Ground Truthing

W. Wight
C. EVANS
S. NOLES

CLEAR
SUNNY

E07066
Ground Truthing

STATIC SESSIONS

	START	UNIT	END	HI	
CP1302	8:10	8138	8:48	6.562	SIR
CP 2000	8:25	8310	8:45	6.562	SIR
CP 2000	8:46	8310	9:32	6.562	SIR
CP 1301	8:59	8138	9:20	6.562	SIR

T@ CP 2000
HI = 5.70
GS CP 2001

BS@ 1302
HI = 5.42
VERT BS = 89° 51' 00"

BSHD = 525.52

1) 179° 58' 46" HR = 6.00
V1) 89° 57' 45" HD = 109.39
BS) 180° 00' 16"
2 359° 58' 48" E = 0.02

North

GS CP2002
1) 94° 49' 17" HR = 6.00
V1) 90° 23' 15" HD = 95.71
BS) 180° 00' 16"
2) 274° 49' 29" E = 0.12

WEST

E01066
Ground Truthing

T@ 2000
HI=5.70

BS@ 1302
HI=5.42
VBS=89° 51' 00"

GS CP 2003

1) 12° 11' 43"
V1) 89° 54' 45"
BS) 180° 00' 20"
2) 192° 11' 57"

HR=6.00
HD=103.52

E=0.14

GS CP 2004

1) 278° 16' 38"
V1) 90° 13' 00"
BS) 180° 00' 13"
2) 98° 16' 43"

HR=6.00
HD=101.88

E=0.05

STATIC SESSIONS

	START	UNIT	END	HI
CP1302	10:45	8310	11:18	6.562
CP2005	10:56	8138	11:11	6.562
CP2005	11:12	8138	11:59	6.562
CP1301	11:30	8310	11:56	6.562

SOUTH

EAST

E07066

Ground Truthing

T@ 1301 HI = 5.54

BS@ 2005 HI = 5.40

VBS = 90° 02' 19"

BSHD = 492.27

GS CP2006

1) 339° 42' 29" HR = 11.99

VI) 85° 43' 03" HD = 78.59

BS) 180° 00' 22"

2) 159° 42' 44" E = 0.15

NNW

GS CP2007

1) 265° 57' 34" HR = 6.00

VI) 90° 22' 36" HD = 43.19

BS) 180° 00' 13"

2) 85° 57" 36' E = 0.02

WEST

GS CP 2008

1) 198° 09" 02' HR = 11.99

VI) 87° 39" 10' HD = 124.43

BS) 180° 00' 16'

2) 18° 09' 16" E = 0.14

SSW

STATIC SESSIONS

	START	UNIT	END	HI
CP1303	12:51	8310	13:24	6.562
CP2009	13:00	8138	13:20	6.562
CP2009	13:22	8138	14:12	6.562
CP1304	13:35	8310	14:05	6.562

EO7066
Ground Truthing

π @ 2009
HI = 5.54

BS @ 1303
HI = 4.99
VBS = 90° 06' 25"

GS 2010
1) 34° 25' 20"
V1) 89° 15' 00"
BS) 180° 00' 08"
2) 214° 25' 39"

HR = 11.99
HD = 106.59
E = 0.19

GS 2011
1) 332° 55' 4.1"
V1) 89° 15' 30"
BS) 180° 00' 11"
2) 153° 55' 55"

HR = 11.99
HD = 225.66
E = 0.11

GS 2012
1) 211° 36' 00"
V1) 89° 09' 22"
BS) 180° 00' 16"
2) 31° 36' 15"

HR = 11.99
HD = 186.00
E = 0.15

GS ID = SBS_T1

NNE

NNW

SW

E0706G
1/7/08
ELEV TRANS

W. Wright
C. EVANS
D. Komula

CLEAR
SUNNY

E07066
ELEV TKANS
FLE 4544-CP1231

Stat	+	HI	−	ELEV	
FLE 4544	8.88	34.72		25.84	
CP1231	3.95	34.92	3.75	30.97	
FLE 4544			9.07	25.85	E=0.01

NAVD 88

F438 - CP1112

Stat	+	HI	−	ELEV	
F438	3.43	31.45		28.02	
CP1112	7.65	31.31	7.79	23.66	
F438			3.28	28.03	E=0.01

NAVD 88

H437 - CP1107

Stat	+	HI	−	ELEV	
H437	5.68	36.50		30.82	
CP1107	2.10	36.39	2.21	34.29	
H437			5.57	30.82	E=0.00

NAVD 88

E07066
ELEV TRANS

H19 – CP111S

Stat	+	HI	–	ELEV	
H19	6.95	20.72		13.77	
CP111S	5.45	20.43	5.74	14.98	
H19			6.67	13.76	E=0.01

NAVD 88

L357 – CP100Z

Stat	+	HI	–	ELEV	
L357	5.89	31.65		25.76	
CP100Z	5.00	31.53	5.12	26.53	
L357			5.78	25.75	E=0.01

NAVD 88

EO7066
SUGAR CANE
Ground truthing
MERRICK

2/16/08

W. Wright
M. ZINGARETTI

Sunny / 76°

E07066
Ground Truthing
UNIT # 8134

CP 5482

FS	HR	Desc
10,000	2.393M	GS1
11,000	2.393M	GS2

CP 5483

FS	HR	Desc
10001	2.393M	GS1
11001	2.393M	GS2

CHECK SHOT

10002	2.597	CK Point

BASE @ CP 1219 2.0M

set control point 10002

EO7066
SUGAR CANE
GROUND TRUTHING
MERRICK

2/18/08
W. Wright
M. ZINGARETTI

Cloudy / 72°

E07066

FS	HR	DESC
11002	2.438M	CK
	CP 5487	
10003	2.417	CP 5487
11003	2.417	CP 5487

FS	HR	DESC
10004	2.417	CK
	CP 5489	
11004	2.417	CP 5489
10005	2.417	CP 5489

FS	HR	Desc
11005	2.417	CK
	CP 5492	
10006	2.417	CP 5429
11006	2.417	CP 5429

BASE @ CP 1222 2.0M
10002 H = 0.064 V = 0.007

BASE @ CP 1242 2.0M

CP 1223 H = 0.036 V = 0.000

BASE @ CP 1224 2.0M

Q529 H = 0.007MV = 0.025M

E0706G

FS	HR	Desc
10007	2.417	CK
	CPS494	
11007	2.417	CPS494
10008	2.417	CPS494

FS	HR	Desc
11008	2.417	CK
	CPS497	
10009	2.417	CPS497
11009	2.417	CPS497
10010	2.417	CPS496
11010	2.417	CPS496

Base @ CP1164 2.0M
CP1163 H=0.006 V=0.020

BASE @ CP1170 2.0M
FLGPS57 H=0.009 V=0.013

E0706C
SUGAR CANE
GROUND TRUTING
MERRICK

2/19/08

W. Wright
J. DENMON

Cloudy 165°

E07066

FS	HR	Desc
10011	2.417	CK CP1183
	CPSS15	
11011	2.417	CPSS15
10012	2.417	CPSS15
	CPSS13	
11013	2.417	CPSS13
10013	2.417	CPSS13
	CPSS10	
10014	2.417	CPSS10
11014	2.417	CPSS10
	CPSS09	
11015	2.417	CPSS09
10015	2.417	CPSS09
	CPSS14	
10016	2.417	CPSS14
11016	2.417	CPSS14
	CPSS12	
11017	2.417	CPSS12
10017	2.417	CPSS12
	CPSS11	
10018	2.417	CPSS11
11018	2.417	CPSS11

BASE @ CP1184 2.0M
CP1183 H=CP.024 V=0.000

E07066

FS	HR	DESC
11019	2.417 CPSS07	OLCP1179
11020	2.417	CPSS07
10020	2.417 CPSS08	CPSS07
10021	2.417	CPSS08
11021	2.417	CPSS08

BASE @ CP1179 CP1150 H=0.004 2.0M V=0.004

E070666
SUGAR CAVE
Ground Truthing

2/20/08
W. Wright
J. DENMON

Sunny / 60°

E07066

FS	HR	DESC
11022	2.417	CK CP1113
	CPSS01	
11023	2.417	CPSS01
10023	2.417	CPSS01
	CPSS00	
10024	2.417	CPSS00
11024	2.417	CPSS00
	CPSS02	
11025	2.417	CPSS02
10025	2.417	CPSS02
	CPS498	
10026	2.417	CPS498
11026	2.417	CPS498
	CPS499	
11027	2.417	CPS499
10027	2.417	CPS499

FS	HR	DESC
10028	2.417	ON CP1116

Base @ CP1230 2.0M
CP1111 H=0.011M V=0.007M

Base @ CP1110 2.0M
CP1111 H=0.015 V=0.014M

E07066

FS	HR	Desc
10029	2.417	CPSS03
11029	2.417	CPSS03
11030	2.417	CPSS06
10030	2.417	CPSS06

SOKKIA

07-22A FIELD BOOK

EO7066
Sugar Cane
Ground Truthing
Merrick

2-16-08

C. Evans

75°/Sunny

Ground Truthing
Unit #8310
Base @ CP 1219

CP 5480

F.S.	H.R.	Desc.
12000	2.609m	G.S.#1
13000	2.609m	G.S.#2

CP 5481

F.S.	H.R.	Desc
12001	2.609m	G.S.#1
13001	2.609m	G.S.#2

CP 5484

F.S.	H.R.	Desc.
12002	2.609m	G.S.#1
13002	2.609m	G.S.#2

CP 5485

F.S.	H.R.	Desc.
12003	3.200m	G.S.#1
13003	3.200m	G.S.#2

E07066
Sugar Cane
Ground Truthing
Merrick

2-18-08

C. Evans

75°/ sunny

Ground Truthing
G.P.S. Unit # 8310
Base @ 1222 2.0m

F.S.	H.R.	Desc.
12043	2.0m	ck. pt. #10002
E = H = 0.01m	V = 0.02m	

CP 5486

F.S.	H.R.	Desc.
12004	2.0m	G.S. #1
13004	2.0m	G.S. #2

Base @ 1242 2.0m

F.S.	H.R.	Desc
12044	2.0m	C.K. pt. #1223
E = H = 0.03m	V = 0.02m	

CP 5488

F.S.	H.R.	Desc.
12005	2.0m	G.S. #1
13005	2.0m	G.S. #2

Base @ 1224 2.0m

F.S.	H.R.	Desc.
12045	2.0m	C.K. pt. #0529
E =	H = 0.03m	V = 0.01m

CP 5490

F.S.	H.R.	Desc.
12006	2.609m	G.S. #1
13006	2.609m.	G.S. #2

Base @ 1164 2.0m

F.S.	H.R.	Desc.
12007	2.0m	C.K. pt. # 1163
E =	H = 0.01m	V = 0.02m

CP 5491

F.S.	H.R.	Desc.
12008	2.609m	G.S. # 1
13008	2.609m	G.S. # 2.

CP 5493

F.S.	H.R.	Desc.
12009	2.0m	G.S. #1
13009	2.0m	G.S. #2

Ground Truthing

Base @ 1170 2.0m

F.S.	H.R.	Desc.
12010	2.0m	ck pt. # FL GPS 57

E= H=0.01m V=0.03m

CP 5495

F.S.	H.R.	Desc.
12011	2.0m	G.S. #1
13011	2.0m	G.S. #2

E07066
Sugar Cane
Ground Truthing
Merrick

2-19-08

C. Evans
S. Hornsby

70s Sunny

RTK ground shots

Ground Truthing

G.P.S. Unit # Static 1

Base @ 1216 1.8m

F.S.	H.R.	Desc.
12012	1.829m	C.K. pt # 1215
E=	H=0.014m	V= 0.007m

CP 5479

F.S.	H.R.	Desc.
12013	3.658m	G.S. #1
13013	3.658m	G.S. #2

CP 5478

F.S.	H.R.	Desc.
12014	1.829m	G.S. #1
13014	1.829m	G.S. #2

CP 5477

F.S.	H.R.	Desc.
12015	1.829m	G.S. #1
13015	1.829m	G.S. #2

Base @ 1211 1.8m

F.S.	H.R.	Desc
12016	1.829m	C.K. pt. # 1149
E=	H=0.003m	V=0.193m

CP 5476

F.S.	H.R.	Desc.
12017	1.829m	G.S. #1
13017	1.829m	G.S. #2

CP 5473

F.S.	H.R.	Desc.
12018	1.829m	G.S. #1
12018	1.829m	G.S. #2

CP 5472

F.S.	H.R.	Desc.
12019	1.829m	G.S #1
13019	1.829m	G.S. #2

CP 5471

F.S.	H.R.	Desc.
12020	1.829m	G.S #1
13020	1.829m	G.S #2

Ground Truthing

Base @ 1211 1.8m

CP5474

F.S.	H.R.	Desc.
12021	1.829m	G.S.#1
13021	1.829m	G.S.#2

CP5475

F.S.	H.R.	Desc
12022	1.829m	G.S.#1
13022	1.829m	G.S.#2

Base @ 1212 1.8m

F.S.	H.R.	Desc.
12023	1.829m	c.k. pt. Bridge
	E= H=0.018m	V=0.014m

CP5464

F.S.	H.R.	Desc.
12024	3.685m	G.S.#1
13024	3.685m	G.S.#2

CP5467

F.S.	H.R.	Desc.
12025	1.829m	G.S.#1
13025	1.829m	G.S.#2

CP5469

F.S.	H.R.	Desc.
12026	1.829m	G.S.#1
13026	1.829m	G.S.#2

E07066
Sugar Cane
Ground Truthing
Merrick

2-20-08

C. Evans
S. Hornsby

70's Sunny

RTK ground ~~Shots~~

Ground Truthing

G.P.S. Unit # Static #1

Base @ 1237 1.8m

F.S.	H.R.	Desc.
12027	1.829m	c.k. pt # 1204
	E= H=0.010m	V=0.006m

CP 5470

F.S.	H.R.	Desc.
12028	1.829m	G.S. #1
13028	1.829m	G.S. #2

CP 5468

F.S.	H.R.	Desc.
12029	1.829m	G.S. #1
13029	1.829m	G.S. #2

CP 5465

F.S.	H.R.	Desc.
12030	3.685m	G.S. #1
13030	3.685m	G.S. #2

CP 5462

F.S.	H.R.	Desc.
12031	3.685m	G.S. #1
13031	3.685m	G.S. #2

CP 5463

F.S.	H.R.	Desc.
12032	3.685m	G.S. #1
13032	3.685m	G.S. #2

CP 5466

F.S.	H.R.	Desc.
12033	3.685m	G.S. #1
13033	3.685m	G.S. #2

CP 5451

F.S.	H.R.	Desc.
12034	1.829m	G.S. #1
13034	1.829m	G.S. #2

CP 5446

F.S.	H.R.	Desc.
12035	1.829m	G.S. #1
13035	1.829m	G.S. #2

Base @ 1237 1.8m

CP5447

F.S.	H.R.	Desc.
12036	3.685m	G.S.#1
13036	3.685m	G.S.#2

C.P. 5448

F.S.	H.R.	Desc.
12037	3.685m	G.S.#1
13037	3.685m	G.S.#2

Base @ 1203 1.8m

F.S.	H.R.	Desc.
12038	3.685m	C.K. pt.#1056
	E= H=0.003m V=0.164m	

CP5459

F.S.	H.R.	Desc.
12039	3.685m	G.S.#1
13039	3.685m	G.S.#2

CP5460

F.S.	H.R.	Desc.
12040	3.685m	G.S.#1
13040	3.685m	G.S.#2

CP5454

F.S.	H.R.	Desc.
12041	3.685m	G.S.#1
12041	3.685m	G.S.#2

CP.5455

F.S.	H.R.	Desc.
12042	3.685m	G.S.#1
13042	3.685m	G.S.#2

Start at pt # 12046

E07066
MERRICK
Ground Truthing.

2-21-08

S. Horsley
J. Denmon

70's Partly cloudy

GPS

5700 Base @ CP 1192
HI = 1.8 m
Pacific Crest Radio.
5800 Rover (Static #1)
HR = Variable.
Data collector #1

FS	HR	Desc.
12046	3.658 m	CK CP 1193

H = 0.011 m V = 0.127 m

CP 5409

F.S.	HR	Desc
12047	3.658 m	GS #1
13047	3.658 m	GS #2

CP 5410

FS	HR	Desc
12048	3.658 m	GS #1
13048	3.658 m	GS #2

CP 5411

FS	HR	DESC
12049	3.658 m	GS #1
13049	3.658 m	GS #2

CP 5414

FS	HR	DESC.
12050	3.658 m	GS #1
13050	3.658 m	GS #2

CP 5415

FS	HR	DESC
12051	3.658m	GS #1
13051	3.658 m	GS #2

CP 5406

FS	HR	DESC.
12052	3.658m	GS #1
13052	3.658m	GS #2

CP 5404

FS	HR	DESC.
12053	3.658 m	GS #1
13053	3.658 m	GS #2

CP 5402

FS	HR	DESC
12054	3.658 m	GS #1
13054	3.658 m	GS #2

CP 5400

FS	HR	DESC
12055	3.658 m	GS #1
13055	3.658 m	GS #2

CP 5401

FS	HR	DESC
12056	3.658 m	GS #1
13056	3.658 m	GS #2

CP 5403

FS	HR	DESC
12057	3.658 m	GS #1
13057	3.658 m	GS #2

CP 5408

FS	HR	DESC.
12058	3.658m	GS #1
13058	3.658m	GS #2

E07.066
MERRICK
GROUND TRUTHING

2-22-08

S. Horsley
J. Denmon

70's PARTLY cloudy

GPS
5700 BASE @ CP 1234
HT = 1.8m
PACIFIC CREST RADIO
5800 ROVER (STATIC #4)
HR = VARIABLE
DATA CONNECTOR #1

FS	HR	DESC.
12059	3.658m	CK 1206

H = 0.009m V = 0.112m

CP 5413

FS.	HR	DESC.
12060	3.658 m	GS #1
13060	3.658 m	GS #2

CP 5412

F.S.	HR	DESC.
12061	3.658m	GS #1
13061	3.658 m	GS #2

CP 5407

FS	HR	DESC
12062	3.658 m	GS #1
13062	3.658 m	GS #2

CP 5405

FS	HR	DESC
12063	3.658m	GS #1
13063	3.658m	GS #2

Base @ CP 1196

HI = 1.8 m

FS	HR	DESC.
12064	3.658 m	CK CP 1235

H = 0.004 m V = 0.131 m

CP 5416

FS	HR	DESC
12065	3.658 m	GS #1
13065	3.658 m	GS #1

Moved Due To Locked GATES & CANALS

CP 5420

FS	HR	DESC
12066	3.658 m	GS #1
13066	3.658 m	GS #2

moved Due To Locked GATES & CANALS

CP 5418

FS	HR	DESC
12067	3.658 m	GS #1
13067	3.658 m.	GS #2

CP 5419

FS	HR	DESC
12068	3.658 m	GS #1
13068	3.658 m	GS #2

CP 5425

FS	HR	DESC
12069	3.658 m	GS #1
13069	3.658 m	GS #2

CP 5424

FS	HR	DESC
12070	3.658 m	GS #1
13070	3.658 m	GS #2

EO7 0666
MERRICK
GROUND TRUTHING

2-23-08

S. HORNSBY
J. DENMON

70's foggy

GPS

5700 BASE @ CP 1198
HI = 1.8m.
PACIFIC CREST RADIO
5800 ROVER (STATIC #1)
HR = VARIABLE
DATA COLLECTOR #1

FS	HR	DESC.
12071	3,536	CK CP 1196

H = 0.024m V = 0.021m

CP 5423

FS	HR	DESC.
12072	3.536m	GS #1
13072	3.536m	GS #2

moved due to CANALS & GATES

CP 5422

FS	HR	DESC
12073	3.536m	GS #1
13073	3.536m	GS #2

CP 5417

FS	HR	DESC
12074	3.536 m	GS #1
13074	3.536 m	GS #2

CP 5421

FS	HR	DESC
12075	3.536 m	GS #1
13075	3.536 m	GS #2

CP 5426

FS	HR	DESC
12076	3.536m	GS #1
13076	3.536m	GS #2

CP 5427

FS	HR	DESC
12077	3.536m	GS #1
13077	3.536 m	GS #2

CP 5429

FS	HR	DESC
12078	3.536 m	GS #1
13078	3.536 m	GS #2

CP 5432

FS	HR	DESC
12079	3.536m	GS #1
13079	3.536m	GS #2

CP 5428

FS	HR	DESC
12080	3.536 m	GS #1
13080	3.536 m	GS #2

CP 5431

FS	HR	DESC
12081	3.536 m	GS #1
13081	3.536 m	GS #2

BASE @ CP 1052

HI = 1.8 m.

FS	HR	DESC
12082	3.536	CK CP 1051

H = 0.020m V = 0.022 m

CP 5445

FS	HR	DESC
12083	3.536	GS #1
13083	3.536	GS #2

CP 5433

FS	HR	DESC
12084	3.536	GS #1
13084	3.536	GS #2

CP 5430

FS	HR	DESC
12085	3.536	GS #1
13085	3.536	GS #2

E07 066
MERRICK
Ground Truthing

2-24-08

S. Hornsby
J. Denmon

70's foggy

GPS

5700 Base @ CP 1199
HI = 1.8m
Pacific Crest Radio
5800 Rover (Static #1)
HR = Variable.
DATA Collector #1

FS	HR	Desc.
12086	1.829 m	CK CP 1053

H = 0.019m V = -0.013 m

CP 5453

FS	HR	Desc
12087	1.829 m	GS #1
13087	1.829 m	GS #2

CP 5452

FS	HR	Desc
12088	1.829 m	GS #1
13088	1.829 m	GS #2

CP 5449

FS	HR	Desc
12089	1.829 m	GS #1
13089	1.829 m	GS #2

CP 5450

FS	HR	DESC
12090	1.829 m	GS #1
13090	1.829 m	GS #2

CP 5444

FS	HR	DESC
12091	1.829 m	GS #1
13091	1.829 m	GS #2

CP 5456

FS	HR	DESC
12092	1.829 m	GS #1
13092	1.829 m	GS #2

FS	HR	Desc
12093	1.829 m	CK CP 1055

H = 0.016 m V = 0.047 m



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