



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

LA Bayou Nezpique Lidar Survey Project Survey Report

FGS Project Number U18001

Jan-Feb 2018

Prime Contractor

Optimal GEO, Inc.

118 West Market Street

Athens, AL 35611



Sub - Contractors

Florabama Geospatial Solutions, LLC.

All Field Work and Processing





TABLE OF CONTENTS

VICINITY MAP 1

INTRODUCTION & SPECIFICATIONS..... 2

HORIZONTAL & VERTICAL DATUMS..... 2

CONTROL SURVEY 2

QUALITY CONTROL PLAN 3

SURVEY AREA..... 4

FINAL COORDINATES 5

GEODATABASE COLUMN HEADERS 13

FIELD BOOKS 14

EQUIPMENT, PERSONNEL & SOFTWARE..... 15

CERTIFICATION 16

APPENDIX “A” RTK SITE CALIBRATION REPORT 17

APPENDIX “B” NGS DATASHEETS..... 20

APPENDIX “C” OPUS DATASHEETS 68



INTRODUCTION & SPECIFICATIONS

The purpose of this project was to provide ground truth data which will be used to validate LiDAR data for portions of nine parishes (Vermilion, Acadia, Lafayette, & Jefferson Davis, St. Landry, Evangeline, Allen, Calcasieu, and Rapides) in Louisiana. FGS collected 290 check points (103 Control, 104 NVA, 83 VVA) in different classifications spread throughout the project area. The target number of LiDAR Control Points was 100[RN1][WW2] which was achieved. This contract was novated from PAR to Optimal GEO, Inc. Optimal GEO did not perform any surveying work or initial processing.

HORIZONTAL & VERTICAL DATUMS

The Control Point Coordinate Values for this project are referenced to National Geodetic Survey (NGS) control monuments in the National Spatial Reference System (NSRS). Horizontal datum is referenced to UTM, NAD1983, Zone 15 North. Vertical values represent the North American Vertical Datum of 1988 (NAVD88). GEOID 12B was used to translate the ellipsoid heights to Orthometric heights. All coordinate values [and elevations](#) are presented in Meters unless otherwise indicated.

CONTROL SURVEY

FGS used LSU C4G Real Time Network Data Correction Service to determine coordinate values for the Survey Control Points and logged raw data at the rovers for post-processing if necessary. We also observed static data on 10 base station sites spread evenly throughout the project area. All Site Calibration Points were observed for at least ten (10) minutes and all LiDAR Control Points were observed for at least six (6) minutes. A Site Calibration was performed using the data that was collected via LSU C4G RTN . Existing control throughout and surrounding the project area were [evaluated against published values and OPUS solutions](#) held as fixed control. The Site Calibration was performed using Trimble Business Center Software. The Accuracy Requirements are [required](#) to meet or exceed an RMSEz of ≤ 10 cm.



QUALITY CONTROL PLAN

**Survey Section
Quality Control Checklist**

Job# U18001 Final Delivery Date: 03-20-2018

General

- Received in correct format
- Floppy disks labels used and signed
- Fathometer Scrolls annotated with survey information
- Were all #H-Records included in data file
- Were field books recorded in data file
- Were Equipment records included
- Maps stamped and signed by RLS
- Field Books included

Horizontal Control

- Datum Correct (NAD-27, NAD-83, WGS-84)
- Are Data Collection files on disk
- Primary Traverse Adjusted (1:5000, 5" /setup)
- Secondary Traverse Adjusted (1:2500, 10"/setup)
- Horizontal Control included
- Are Traverses Stationed

Vertical Control

- Datum Correct (NGVD29, NAVD88)
- Epoch Correct (Survey Request Form)
- Are PBMs included
- Are TBMs included
- Was specified control used by contractor (example: elev/epoch)
- Do levels meet accuracy requirements

Staff Gage

- Were all gage readings included in data file
- Spot check of W.S. interpolation performed
- Gages read before and after survey

Cross Sections

- Spikes checked
- Are sections normal to B/L or C/L as specified
- All sections included
- Sections lengths checked
- Gaps Checked

Miscellaneous Points

- Descriptions included
- Were all features located and included in data file.

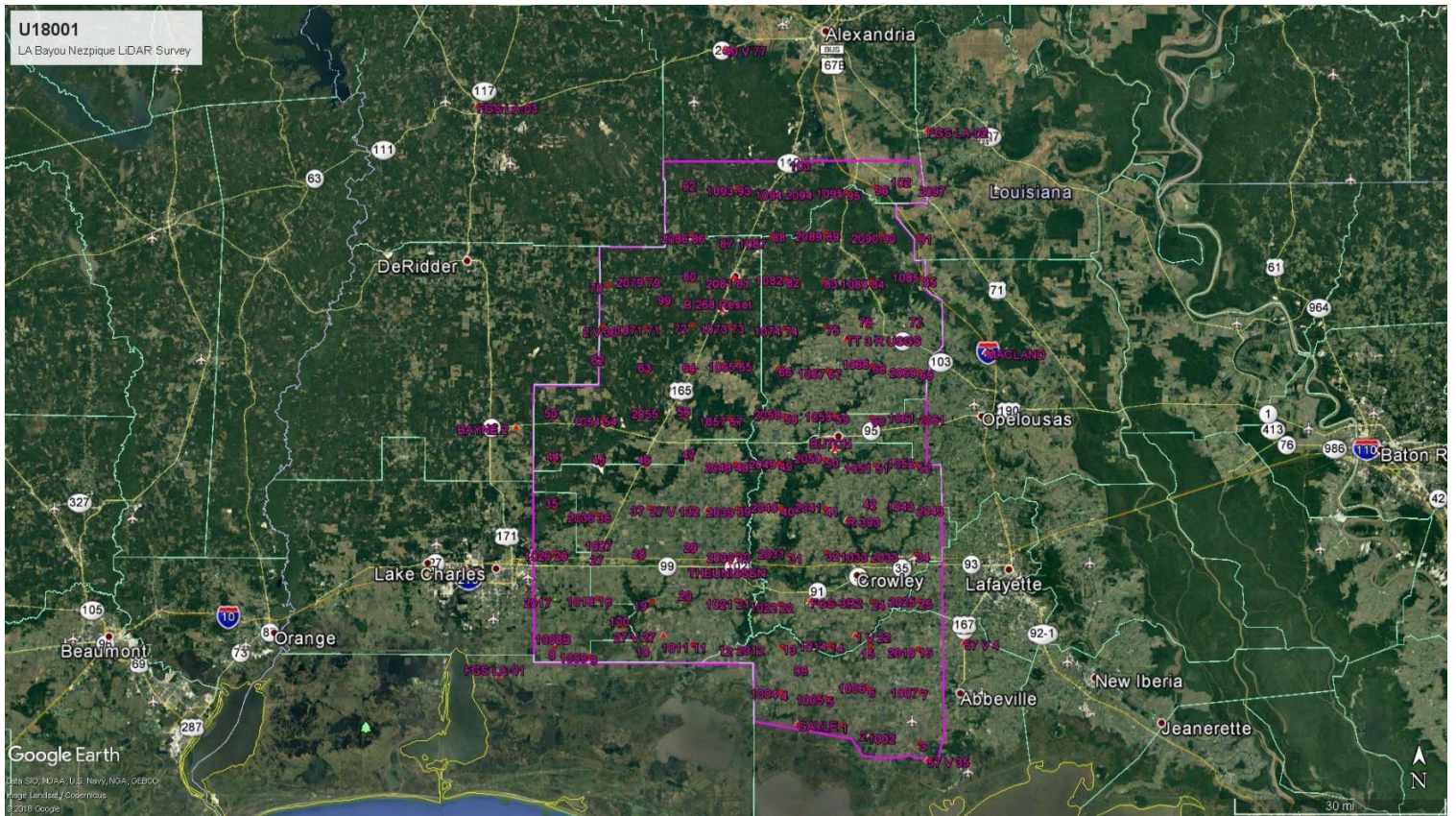
Archive

- Job archived in Project Wise Date:
- Job imported into EGIS Date:
- Vertical Control Imported to EGIS/Archive Date:

Comments:

SURVEY AREA

The map shows the general location of the Site Calibration Control Points and the located Survey Control Points.





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FINAL COORDINATES

Point	Easting(M)	Northing(M)	Elev.(M)	Latitude (Global)	Longitude (Global)	EllipHeight (Global)	Feature Code
1	556812.651	3309111.048	1.147	29°54'40.96582"	92°24'41.31357"	-25.444	LCP
2	563595.525	3306841.465	0.876	29°53'26.03793"	92°20'28.86139"	-25.619	LCP
3	574472.552	3305155.231	0.921	29°52'29.06105"	92°13'43.76497"	-25.463	LCP
4	543253.432	3316408.039	1.073	29°58'40.01668"	92°33'05.89302"	-25.746	LCP
5	553522.223	3315099.830	1.231	29°57'56.05733"	92°26'42.93781"	-25.529	LCP
6	562942.972	3317229.914	2.629	29°59'03.64617"	92°20'50.98898"	-24.139	LCP
7	574769.762	3316661.496	3.726	29°58'42.78849"	92°13'29.79154"	-22.975	LCP
8	492284.108	3326540.945	2.815	30°04'11.87899"	93°04'48.20525"	-24.274	LCP
9	500339.174	3324277.893	0.784	30°02'58.44385"	92°59'47.33378"	-26.290	LCP
10	512581.290	3327289.368	0.993	30°04'36.04833"	92°52'10.03011"	-26.116	LCP
11	523346.515	3327112.792	1.112	30°04'29.74152"	92°45'27.91497"	-25.956	LCP
12	533351.576	3326437.745	2.249	30°04'06.97457"	92°39'14.26738"	-24.786	LCP
13	543502.455	3326735.428	1.904	30°04'15.49568"	92°32'55.08121"	-25.140	LCP
14	554185.397	3327058.005	2.478	30°04'24.43694"	92°26'16.00351"	-24.556	LCP
15	563179.829	3326970.350	3.785	30°04'20.03328"	92°20'40.06879"	-23.218	LCP
16	574081.951	3326156.281	6.176	30°03'51.38227"	92°13'53.07889"	-20.762	LCP
17	492270.739	3337070.476	5.394	30°09'53.96195"	93°04'48.98113"	-21.785	LCP
18	501983.225	3337403.321	3.124	30°10'04.85790"	92°58'45.84910"	-24.097	LCP
19	514239.191	3336546.156	1.567	30°09'36.71642"	92°51'07.65212"	-25.646	LCP
20	522226.075	3337040.741	3.056	30°09'52.35344"	92°46'09.01785"	-24.185	LCP
21	533194.450	3336966.892	6.773	30°09'49.05493"	92°39'18.94887"	-20.459	LCP
22	542966.165	3336125.566	3.473	30°09'20.62193"	92°33'13.74204"	-23.756	LCP
23	553245.296	3337108.544	4.441	30°09'51.09260"	92°26'49.29977"	-22.798	LCP
24	563558.835	3336810.346	5.729	30°09'39.62322"	92°20'23.78815"	-21.472	LCP
25	574113.738	3337007.393	6.862	30°09'43.87478"	92°13'49.16028"	-20.304	LCP
26	492199.630	3347541.167	5.751	30°15'34.12705"	93°04'51.91853"	-21.488	LCP
27	502306.799	3347696.917	8.865	30°15'39.26943"	92°58'33.66989"	-18.436	LCP
28	511771.444	3346382.759	6.926	30°14'56.37813"	92°52'39.51628"	-20.411	LCP
29	523319.497	3347800.020	7.330	30°15'41.81919"	92°45'27.28113"	-20.039	LCP
30	533194.300	3347332.226	7.849	30°15'25.79323"	92°39'17.78015"	-19.525	LCP
31	544889.398	3347098.983	4.367	30°15'16.85997"	92°32'00.16453"	-23.016	LCP
32	553136.969	3347705.752	5.055	30°15'35.37092"	92°26'51.42761"	-22.326	LCP
33	563357.207	3347250.592	6.765	30°15'18.81682"	92°20'29.06843"	-20.576	LCP
34	573501.489	3347492.825	9.188	30°15'24.62423"	92°14'09.41805"	-18.130	LCP
35	492108.894	3357538.522	4.062	30°20'58.90960"	93°04'55.58475"	-23.211	LCP
36	501888.838	3356013.254	8.324	30°20'09.44585"	92°58'49.25792"	-18.998	LCP
37	513466.339	3357643.056	10.916	30°21'02.12809"	92°51'35.57409"	-16.469	LCP



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38	523014.924	3357572.976	11.038	30°20'59.33222"	92°45'37.90814"	-16.380	LCP
39	533286.181	3357547.199	9.426	30°20'57.63290"	92°39'13.17581"	-18.016	LCP
40	543129.013	3357514.992	8.780	30°20'55.46560"	92°33'04.49902"	-18.676	LCP
41	553058.136	3357577.573	10.537	30°20'56.07516"	92°26'52.58154"	-16.908	LCP
42	563589.655	3357632.707	10.326	30°20'56.03529"	92°20'18.10665"	-17.100	LCP
43	573808.603	3357871.757	12.649	30°21'01.70802"	92°13'55.29922"	-14.769	LCP
44	492371.656	3368065.681	9.865	30°26'40.90724"	93°04'46.01889"	-17.374	LCP
45	502715.519	3367303.662	10.204	30°26'16.22801"	92°58'18.19086"	-17.092	LCP
46	512863.634	3367316.371	12.655	30°26'16.40441"	92°51'57.72168"	-14.694	LCP
47	522905.441	3368563.609	13.452	30°26'56.38511"	92°45'41.14169"	-13.930	LCP
48	532788.662	3367414.819	11.684	30°26'18.24205"	92°39'30.69693"	-15.738	LCP
49	542655.226	3367669.579	10.776	30°26'25.40466"	92°33'20.75329"	-16.659	LCP
50	552939.972	3368470.139	10.967	30°26'49.94012"	92°26'55.02070"	-16.468	LCP
51	564291.796	3367317.361	15.493	30°26'10.50192"	92°19'49.66327"	-11.943	LCP
52	573770.954	3367425.705	15.826	30°26'12.06408"	92°13'54.28166"	-11.604	LCP
53	491952.155	3377666.915	21.029	30°31'52.80447"	93°05'02.01516"	-6.138	LCP
54	503221.653	3377533.366	14.862	30°31'48.54765"	92°57'59.10105"	-12.359	LCP
55	512728.968	3377527.097	14.304	30°31'48.11635"	92°52'02.32077"	-12.969	LCP
56	521727.723	3378091.381	17.145	30°32'05.98201"	92°46'24.58424"	-10.161	LCP
57	531522.671	3377590.461	17.781	30°31'48.92627"	92°40'17.05051"	-9.559	LCP
58	543745.941	3378218.402	14.557	30°32'07.94376"	92°32'38.26372"	-12.807	LCP
59	555239.813	3378284.059	14.628	30°32'08.36829"	92°25'26.91538"	-12.742	LCP
60	563392.144	3377902.791	17.779	30°31'54.53114"	92°20'21.06791"	-9.597	LCP
61	574059.083	3377931.912	19.087	30°31'53.27601"	92°13'40.78805"	-8.287	LCP
62	502412.368	3389557.847	19.008	30°38'19.17807"	92°58'29.37020"	-8.129	LCP
63	512966.632	3387855.012	19.704	30°37'23.61615"	92°51'52.93645"	-7.486	LCP
64	522939.353	3387887.644	21.598	30°37'24.13666"	92°45'38.33221"	-5.642	LCP
65	533499.389	3389872.600	22.362	30°38'27.71963"	92°39'01.44045"	-4.894	LCP
66	542499.852	3388711.954	14.417	30°37'48.98531"	92°33'23.47601"	-12.874	LCP
67	553596.263	3388339.687	17.628	30°37'35.28551"	92°26'26.71942"	-9.675	LCP
68	563531.955	3389504.028	17.732	30°38'11.35348"	92°20'13.25835"	-9.565	LCP
69	574158.880	3388174.345	18.857	30°37'25.95629"	92°13'34.40266"	-8.452	LCP
70	502834.315	3398072.527	38.056	30°42'55.77606"	92°58'13.43384"	10.990	LCP
71	512813.284	3397938.790	30.228	30°42'51.19548"	92°51'58.24539"	3.108	LCP
72	522995.670	3398285.721	27.269	30°43'01.91409"	92°45'35.38165"	0.103	LCP
73	531735.568	3398246.203	28.288	30°42'59.90693"	92°40'06.77704"	1.093	LCP
74	543739.185	3397799.973	27.787	30°42'44.04147"	92°32'35.53279"	0.560	LCP
75	553109.278	3398105.652	16.699	30°42'52.59888"	92°26'43.20017"	-10.536	LCP



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Point	Easting(M)	Northing(M)	Elev.(M)	Latitude (Global)	Longitude (Global)	EllipHeight (Global)	Feature Code
76	562478.564	3398215.845	20.819	30°42'54.54062"	92°20'50.92794"	-6.415	LCP
77	573828.604	3398255.844	19.561	30°42'53.50041"	92°13'44.20831"	-7.685	LCP
78	504093.216	3407284.343	40.055	30°47'55.00707"	92°57'25.96872"	13.114	LCP
79	512793.743	3408585.574	37.993	30°48'37.05401"	92°51'58.50213"	10.979	LCP
80	523000.535	3408327.387	34.569	30°48'28.11243"	92°45'34.38832"	7.497	LCP
81	532929.549	3408339.795	34.033	30°48'27.67261"	92°39'20.71908"	6.920	LCP
82	544081.295	3408652.301	28.960	30°48'36.52043"	92°32'20.99231"	1.824	LCP
83	552640.019	3408383.866	29.103	30°48'26.54431"	92°26'58.94437"	1.955	LCP
84	563228.355	3408379.768	32.050	30°48'24.54921"	92°20'20.48412"	4.900	LCP
85	574820.543	3408908.155	13.969	30°48'39.28333"	92°13'04.11996"	-13.209	LCP
86	522848.813	3418429.312	48.055	30°53'56.27456"	92°45'39.28467"	21.094	LCP
87	533357.771	3417350.980	38.890	30°53'20.34679"	92°39'03.54420"	11.876	LCP
88	540907.193	3418141.939	34.311	30°53'45.18602"	92°34'19.07902"	7.274	LCP
89	552963.707	3418981.657	34.583	30°54'10.73855"	92°26'44.78453"	7.531	LCP
90	565616.329	3418594.376	15.833	30°53'55.87326"	92°18'48.25881"	-11.254	LCP
91	573806.827	3418441.311	20.058	30°53'49.16216"	92°13'39.78827"	-7.044	LCP
92	522799.302	3428430.954	51.761	30°59'21.16746"	92°45'40.34230"	24.989	LCP
93	533064.891	3429082.550	42.581	30°59'41.45663"	92°39'13.20230"	15.739	LCP
94	543897.604	3428216.100	34.378	30°59'12.03732"	92°32'24.87144"	7.442	LCP
95	557687.316	3428150.323	28.676	30°59'07.75962"	92°23'44.97492"	1.683	LCP
96	564028.271	3429347.902	19.715	30°59'45.47909"	92°19'45.63851"	-7.284	LCP
97	574169.558	3429083.098	20.894	30°59'34.73516"	92°13'23.33089"	-6.127	LCP
98	548230.330	3321749.278	1.791	30°01'32.87080"	92°29'59.30348"	-25.141	LCP
99	517367.240	3402944.906	30.422	30°45'33.61019"	92°49'06.72139"	3.324	LCP
100	507408.970	3331167.209	2.247	30°06'42.18446"	92°55'23.14272"	-24.925	LCP
101	574160.582	3429097.434	20.780	30°59'35.20284"	92°13'23.66557"	-6.241	NVA
102	567384.745	3431178.361	19.095	31°00'44.26001"	92°17'38.64336"	-7.894	NVA
103	544769.975	3434766.921	53.546	31°02'44.70573"	92°31'50.93803"	26.703	NVA
1001	556808.432	3309099.431	1.245	29°54'40.58911"	92°24'41.47313"	-25.345	NVA
1002	562721.897	3306803.398	1.834	29°53'24.96273"	92°21'01.44062"	-24.664	NVA
1003	574470.421	3305131.653	2.168	29°52'28.29556"	92°13'43.85031"	-24.217	NVA
1004	543229.796	3316395.277	1.098	29°58'39.60507"	92°33'06.77690"	-25.721	NVA
1005	553509.561	3315081.380	1.419	29°57'55.45992"	92°26'43.41358"	-25.341	NVA
1006	562914.045	3317222.459	2.496	29°59'03.40934"	92°20'52.07006"	-24.272	NVA
1007	574757.761	3316659.588	3.524	29°58'42.72914"	92°13'30.23984"	-23.177	NVA
1008A	492259.320	3326546.258	2.425	30°04'12.05104"	93°04'49.13130"	-24.664	NVA
1008B	492243.706	3327174.129	2.393	30°04'32.44910"	93°04'49.73103"	-24.702	NVA
1009	500359.852	3324286.157	0.757	30°02'58.71234"	92°59'46.56154"	-26.317	NVA



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1010	512544.359	3327413.800	0.671	30°04'40.09226"	92°52'11.40438"	-26.440	NVA
1011	523331.941	3327144.204	2.237	30°04'30.76302"	92°45'28.45688"	-24.831	NVA
1012	533353.801	3326423.549	2.197	30°04'06.51315"	92°39'14.18585"	-24.838	NVA
1013	543502.668	3326755.786	1.957	30°04'16.15704"	92°32'55.07025"	-25.088	NVA
1014	554171.229	3327061.228	2.206	30°04'24.54392"	92°26'16.53212"	-24.827	NVA
1015	563201.441	3326936.498	3.722	30°04'18.92956"	92°20'39.26882"	-23.280	NVA
1016	574069.270	3326140.202	5.939	30°03'50.86270"	92°13'53.55649"	-21.000	NVA
1017	492300.115	3337079.875	5.580	30°09'54.26798"	93°04'47.88305"	-21.599	NVA
1018	501969.457	3337403.291	3.147	30°10'04.85701"	92°58'46.36385"	-24.074	NVA
1020	522169.597	3337054.295	3.034	30°09'52.79749"	92°46'11.12841"	-24.208	NVA
1021	533192.356	3336895.108	6.999	30°09'46.72310"	92°39'19.03529"	-20.232	NVA
1022	542956.859	3336124.645	3.513	30°09'20.59318"	92°33'14.09007"	-23.715	NVA
1023	553251.324	3337115.405	4.378	30°09'51.31454"	92°26'49.07314"	-22.861	NVA
1024	563555.381	3336819.265	5.533	30°09'39.91362"	92°20'23.91535"	-21.668	NVA
1025	574134.502	3337002.653	6.653	30°09'43.71624"	92°13'48.38526"	-20.512	NVA
1026	492190.250	3347547.520	5.868	30°15'34.33322"	93°04'52.26971"	-21.371	NVA
1027	502482.718	3348060.216	8.797	30°15'51.07078"	92°58'27.08318"	-18.507	NVA
1028	511736.441	3346363.994	6.932	30°14'55.76971"	92°52'40.82682"	-20.429	NVA
1029	523329.229	3347815.468	7.447	30°15'42.32035"	92°45'26.91567"	-19.922	NVA
1030	533210.981	3347347.462	7.483	30°15'26.28654"	92°39'17.15418"	-19.892	NVA
1031	544899.047	3347132.804	4.444	30°15'17.95740"	92°31'59.79828"	-22.939	NVA
1032	553126.567	3347724.780	5.141	30°15'35.99071"	92°26'51.81339"	-22.239	NVA
1033	563354.964	3347462.723	7.385	30°15'25.70837"	92°20'29.10641"	-19.959	NVA
1034	573512.428	3347489.863	9.323	30°15'24.52560"	92°14'09.00946"	-17.995	NVA
1035	492102.717	3357561.161	4.228	30°20'59.64491"	93°04'55.81672"	-23.039	NVA
1036	501854.346	3355992.576	7.868	30°20'08.77429"	92°58'50.54986"	-19.455	NVA
1037	513456.302	3357646.871	10.556	30°21'02.25242"	92°51'35.94988"	-16.829	NVA
1038	523006.360	3357588.436	11.013	30°20'59.83503"	92°45'38.22768"	-16.405	NVA
1039	533272.836	3357413.230	9.586	30°20'53.28206"	92°39'13.69100"	-17.855	NVA
1040	543119.020	3357480.869	9.191	30°20'54.35837"	92°33'04.87837"	-18.249	NVA
1041	553074.188	3357574.813	10.588	30°20'55.98297"	92°26'51.98078"	-16.857	NVA
1042	563590.918	3357643.235	10.149	30°20'56.37706"	92°20'18.05705"	-17.278	NVA
1043	573750.976	3357862.694	12.705	30°21'01.42630"	92°13'57.45992"	-14.713	NVA
1044	492346.606	3368083.661	9.673	30°26'41.49076"	93°04'46.95858"	-17.566	NVA
1045	502743.160	3367311.039	9.789	30°26'16.46744"	92°58'17.15451"	-17.507	NVA
1046	512863.384	3367294.649	12.847	30°26'15.69874"	92°51'57.73203"	-14.503	NVA
1047	522894.564	3368524.044	13.433	30°26'55.10052"	92°45'41.55264"	-13.949	NVA
1048	532788.817	3367396.644	11.814	30°26'17.65161"	92°39'30.69319"	-15.608	NVA



USGS LA Bayou Nezpique Lidar Survey

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1049	542682.134	3367679.611	10.791	30°26'25.72714"	92°33'19.74299"	-16.645	NVA
1050	552950.787	3368490.149	10.768	30°26'50.58843"	92°26'54.61152"	-16.667	NVA
1051	564259.763	3367323.485	14.774	30°26'10.70702"	92°19'50.86278"	-12.662	NVA
1052	573760.467	3367434.740	15.905	30°26'12.35986"	92°13'54.67250"	-11.525	NVA
1053	491958.467	3377666.659	20.888	30°31'52.79628"	93°05'01.77828"	-6.279	NVA
1054	503213.479	3377543.224	14.707	30°31'48.86796"	92°57'59.40770"	-12.514	NVA
1055	512734.402	3377532.203	14.275	30°31'48.28201"	92°52'02.11665"	-12.998	NVA
1056	521743.698	3378096.403	17.080	30°32'06.14412"	92°46'23.98436"	-10.226	NVA
1057	531507.565	3377619.555	17.437	30°31'49.87284"	92°40'17.61417"	-9.903	NVA
1058	543747.864	3378205.241	14.756	30°32'07.51596"	92°32'38.19358"	-12.608	NVA
1059	555236.996	3378325.345	14.677	30°32'09.70992"	92°25'27.01320"	-12.693	NVA
1060	563440.476	3377885.898	16.420	30°31'53.97320"	92°20'19.25799"	-10.956	NVA
1061	573936.621	3378108.350	19.228	30°31'59.03445"	92°13'45.33806"	-8.145	NVA
1062	502438.979	3389548.890	19.005	30°38'18.88693"	92°58'28.37055"	-8.123	NVA
1063	512969.797	3387846.548	19.806	30°37'23.34106"	92°51'52.81796"	-7.384	NVA
1064	522924.216	3387905.382	20.781	30°37'24.71392"	92°45'38.89939"	-6.460	NVA
1065	533460.897	3389879.060	22.672	30°38'27.93337"	92°39'02.88580"	-4.550	NVA
1066	542502.178	3388660.301	14.109	30°37'47.30709"	92°33'23.39628"	-13.182	NVA
1067	553602.597	3388334.881	17.475	30°37'35.12836"	92°26'26.48237"	-9.828	NVA
1068	563531.550	3389510.714	18.028	30°38'11.57075"	92°20'13.27208"	-9.270	NVA
1069	574152.124	3388163.522	18.889	30°37'25.60623"	92°13'34.65923"	-8.420	NVA
1070	502842.641	3398072.535	37.845	30°42'55.77625"	92°58'13.12080"	10.780	NVA
1071	512802.905	3397928.611	30.162	30°42'50.86523"	92°51'58.63606"	3.042	NVA
1072	523017.587	3398287.345	27.250	30°43'01.96532"	92°45'34.55747"	0.084	NVA
1073	531731.413	3398235.310	27.766	30°42'59.55346"	92°40'06.93448"	0.571	NVA
1074	543731.689	3397798.165	27.853	30°42'43.98375"	92°32'35.81487"	0.626	NVA
1075	553128.392	3398040.342	16.940	30°42'50.47430"	92°26'42.49371"	-10.296	NVA
1076	562464.868	3398211.518	21.366	30°42'54.40267"	92°20'51.44381"	-5.868	NVA
1077	573832.054	3398238.344	19.658	30°42'52.93120"	92°13'44.08316"	-7.588	NVA
1078	504083.530	3407275.743	40.182	30°47'54.72783"	92°57'26.33333"	13.193	NVA
1079	512798.776	3408580.983	37.831	30°48'36.90468"	92°51'58.31294"	10.817	NVA
1080	523000.522	3408291.462	34.558	30°48'26.94543"	92°45'34.39173"	7.487	NVA
1081	532994.439	3408403.480	34.318	30°48'29.73485"	92°39'18.26962"	7.205	NVA
1082	544084.536	3408672.588	29.002	30°48'37.17902"	92°32'20.86722"	1.867	NVA
1083	552644.446	3408409.299	28.757	30°48'27.36976"	92°26'58.77307"	1.610	NVA
1084	563223.080	3408372.328	31.831	30°48'24.30855"	92°20'20.68425"	4.681	NVA
1085	574806.280	3408900.586	11.303	30°48'39.04073"	92°13'04.65872"	-15.875	NVA
1086	522842.722	3418419.741	47.856	30°53'55.96410"	92°45'39.51487"	20.914	NVA



USGS LA Bayou Nezpique Lidar Survey

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1087	533363.038	3417339.215	38.700	30°53'19.96408"	92°39'03.34720"	11.687	NVA
1088	540914.520	3418132.880	33.847	30°53'44.89085"	92°34'18.80434"	6.810	NVA
1089	552968.487	3418962.961	34.550	30°54'10.13046"	92°26'44.60798"	7.497	NVA
1090	565587.821	3418616.563	14.929	30°53'56.59964"	92°18'49.32750"	-12.157	NVA
1091	573830.587	3418434.596	19.231	30°53'48.93872"	92°13'38.89507"	-7.872	NVA
1092	522796.905	3428449.184	49.430	30°59'21.75979"	92°45'40.43122"	22.658	NVA
1093	533052.829	3429089.403	42.364	30°59'41.68044"	92°39'13.65636"	15.523	NVA
1094	543896.948	3428209.057	34.251	30°59'11.80862"	92°32'24.89728"	7.314	NVA
1095	557673.463	3428178.053	28.471	30°59'08.66280"	92°23'45.49154"	1.478	NVA
1096	563961.108	3429371.160	19.143	30°59'46.24769"	92°19'48.16564"	-7.856	NVA
1097	574150.973	3429069.894	19.946	30°59'34.31051"	92°13'24.03511"	-7.075	NVA
1098	548270.113	3321728.304	1.537	30°01'32.18375"	92°29'57.82166"	-25.394	NVA
1099	517353.910	3402947.551	30.305	30°45'33.69679"	92°49'07.22266"	3.207	NVA
1100	507386.051	3331158.493	1.542	30°06'41.90179"	92°55'23.99938"	-25.630	NVA
1101	507412.775	3331149.109	1.801	30°06'41.59635"	92°55'23.00099"	-25.371	NVA
2002	563600.448	3306850.852	0.111	29°53'26.34199"	92°20'28.67587"	-26.384	VVA
2009	500354.498	3324255.686	0.711	30°02'57.72237"	92°59'46.76154"	-26.363	VVA
2010	512503.999	3327408.452	0.554	30°04'39.92000"	92°52'12.91224"	-26.557	VVA
2012	533304.753	3326580.290	1.233	30°04'11.61010"	92°39'16.00016"	-25.804	VVA
2013	543525.833	3326767.506	2.120	30°04'16.53480"	92°32'54.20328"	-24.925	VVA
2015	563166.716	3326984.519	3.530	30°04'20.49604"	92°20'40.55552"	-23.474	VVA
2016	574058.609	3326137.681	5.896	30°03'50.78314"	92°13'53.95528"	-21.042	VVA
2017	492313.377	3337095.143	5.346	30°09'54.76430"	93°04'47.38760"	-21.832	VVA
2019A	514230.616	3336530.821	1.198	30°09'36.21859"	92°51'07.97346"	-26.045	VVA
2019B	514251.794	3336510.111	1.110	30°09'35.54487"	92°51'07.18271"	-26.133	VVA
2020	522204.219	3337051.111	3.115	30°09'52.69179"	92°46'09.83421"	-24.127	VVA
2021	533192.464	3336909.345	6.838	30°09'47.18562"	92°39'19.02965"	-20.394	VVA
2022	542985.359	3336129.316	3.389	30°09'20.74130"	92°33'13.02398"	-23.840	VVA
2023	553255.166	3337242.361	4.157	30°09'55.43825"	92°26'48.90648"	-23.085	VVA
2024	563566.222	3336834.286	5.106	30°09'40.39956"	92°20'23.50679"	-22.095	VVA
2025	574111.102	3337032.854	6.404	30°09'44.70244"	92°13'49.25242"	-20.762	VVA
2026	492185.032	3347570.605	5.647	30°15'35.08310"	93°04'52.46564"	-21.592	VVA
2027	502378.870	3347765.720	8.976	30°15'41.50416"	92°58'30.97215"	-18.326	VVA
2028	511790.867	3346361.175	6.940	30°14'55.67625"	92°52'38.79036"	-20.397	VVA
2029	523310.043	3347828.209	7.480	30°15'42.73560"	92°45'27.63267"	-19.889	VVA
2030	533332.858	3347353.911	7.404	30°15'26.48402"	92°39'12.59255"	-19.971	VVA
2031	544877.977	3347094.676	6.009	30°15'16.72158"	92°32'00.59260"	-21.373	VVA
2032	553120.738	3347690.850	4.986	30°15'34.88940"	92°26'52.03768"	-22.394	VVA



USGS LA Bayou Nezpique Lidar Survey

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2033	563360.679	3347471.729	7.527	30°15'25.99983"	92°20'28.89059"	-19.816	VVA
2035	492131.928	3357513.597	3.204	30°20'58.10038"	93°04'54.72125"	-24.063	VVA
2036	501923.136	3356062.487	7.989	30°20'11.04509"	92°58'47.97301"	-19.333	VVA
2037	513484.212	3357729.009	10.598	30°21'04.91971"	92°51'34.90063"	-16.788	VVA
2038	523030.141	3357588.130	10.846	30°20'59.82346"	92°45'37.33693"	-16.572	VVA
2039	533250.003	3357414.067	9.382	30°20'53.31153"	92°39'14.54616"	-18.060	VVA
2040	543113.018	3357530.565	8.873	30°20'55.97356"	92°33'05.09584"	-18.582	VVA
2041	553067.170	3357549.299	10.529	30°20'55.15526"	92°26'52.24831"	-16.916	VVA
2042	563613.930	3357626.591	10.562	30°20'55.83201"	92°20'17.19877"	-16.864	VVA
2043	573637.132	3357836.489	13.011	30°21'00.60005"	92°14'01.73060"	-14.407	VVA
2044A	492344.478	3368108.785	9.700	30°26'42.30691"	93°04'47.03906"	-17.538	VVA
2044B	492427.199	3368013.416	8.626	30°26'39.21060"	93°04'43.93498"	-18.613	VVA
2045	502758.461	3367283.077	10.174	30°26'15.55892"	92°58'16.58109"	-17.122	VVA
2046	512859.521	3367331.722	13.065	30°26'16.90328"	92°51'57.87522"	-14.284	VVA
2047	522890.850	3368538.905	13.401	30°26'55.58356"	92°45'41.69071"	-13.982	VVA
2048	532739.596	3367401.613	11.829	30°26'17.81786"	92°39'32.53798"	-15.592	VVA
2049	542654.777	3367655.282	10.628	30°26'24.94029"	92°33'20.77222"	-16.807	VVA
2050	552933.030	3368520.062	10.514	30°26'51.56296"	92°26'55.27185"	-16.921	VVA
2051	564283.855	3367330.268	14.650	30°26'10.92273"	92°19'49.95809"	-12.786	VVA
2052	574179.544	3367301.422	16.355	30°26'07.93649"	92°13'38.99636"	-11.075	VVA
2053	491920.748	3377654.282	20.975	30°31'52.39330"	93°05'03.19344"	-6.192	VVA
2054	503236.671	3377533.625	14.748	30°31'48.55591"	92°57'58.53747"	-12.473	VVA
2055	512834.324	3377558.435	13.692	30°31'49.13034"	92°51'58.36570"	-13.582	VVA
2056	521742.919	3378068.673	17.096	30°32'05.24334"	92°46'24.01567"	-10.210	VVA
2057	531503.182	3377635.557	17.380	30°31'50.39310"	92°40'17.77693"	-9.960	VVA
2058	543770.705	3378224.723	14.721	30°32'08.14585"	92°32'37.33342"	-12.643	VVA
2060	563395.278	3377876.775	17.025	30°31'53.68544"	92°20'20.95606"	-10.351	VVA
2061	573898.470	3378154.820	19.140	30°32'00.55241"	92°13'46.75777"	-8.233	VVA
2062	502445.105	3389562.439	19.055	30°38'19.32703"	92°58'28.14030"	-8.073	VVA
2063	512969.388	3387836.862	19.990	30°37'23.02642"	92°51'52.83376"	-7.200	VVA
2064	522921.975	3387929.273	20.390	30°37'25.49017"	92°45'38.98164"	-6.850	VVA
2065	533499.693	3389850.822	22.506	30°38'27.01214"	92°39'01.43158"	-4.750	VVA
2066	542511.193	3388704.977	14.605	30°37'48.75722"	92°33'23.05101"	-12.686	VVA
2067	553602.782	3388355.552	17.149	30°37'35.79981"	92°26'26.47158"	-10.153	VVA
2068	563581.322	3389485.473	18.539	30°38'10.74128"	92°20'11.40795"	-8.758	VVA
2069	574140.851	3388180.626	18.829	30°37'26.16434"	92°13'35.07822"	-8.480	VVA
2070	502846.086	3398076.788	38.053	30°42'55.91439"	92°58'12.99124"	10.988	VVA
2071	512830.355	3397952.073	30.018	30°42'51.62632"	92°51'57.60296"	2.899	VVA



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2072	523025.216	3398284.890	26.936	30°43'01.88503"	92°45'34.27084"	-0.230	VVA
2073	531743.890	3398204.240	28.155	30°42'58.54299"	92°40'06.46882"	0.960	VVA
2074	543746.668	3398027.729	28.044	30°42'51.43891"	92°32'35.21657"	0.819	VVA
2075	553107.992	3398058.218	16.558	30°42'51.05827"	92°26'43.25731"	-10.678	VVA
2076	562494.527	3398222.453	21.041	30°42'54.75225"	92°20'50.32635"	-6.192	VVA
2077	573835.702	3398264.757	19.327	30°42'53.78835"	92°13'43.93918"	-7.919	VVA
2078	504051.078	3407292.513	40.531	30°47'55.27302"	92°57'27.55430"	13.542	VVA
2079	512805.424	3408579.346	38.326	30°48'36.85123"	92°51'58.06281"	11.312	VVA
2081	533021.190	3408427.181	34.463	30°48'30.50209"	92°39'17.26011"	7.350	VVA
2082	544080.098	3408715.345	29.182	30°48'38.56849"	92°32'21.02761"	2.047	VVA
2083	552647.121	3408385.048	29.151	30°48'26.58157"	92°26'58.67689"	2.004	VVA
2085	574755.628	3408934.661	11.612	30°48'40.15902"	92°13'06.55590"	-15.565	VVA
2086	522843.309	3418439.011	48.063	30°53'56.59000"	92°45'39.49122"	21.121	VVA
2088	540922.704	3418133.482	33.645	30°53'44.90937"	92°34'18.49600"	6.607	VVA
2089	552928.855	3418999.532	34.411	30°54'11.32477"	92°26'46.09405"	7.359	VVA
2090	565571.298	3418598.862	14.541	30°53'56.02798"	92°18'49.95397"	-12.545	VVA
2092	522816.193	3428453.917	49.528	30°59'21.91219"	92°45'39.70356"	22.756	VVA
2093	532346.053	3429039.211	38.984	30°59'40.12074"	92°39'40.31256"	12.147	VVA
2094	543869.620	3428216.151	35.101	30°59'12.04273"	92°32'25.92651"	8.165	VVA
2095	557649.696	3428174.571	28.396	30°59'08.55388"	92°23'46.38834"	1.402	VVA
2097	573838.369	3429221.313	19.555	30°59'39.29941"	92°13'35.78167"	-7.464	VVA
2098	548195.244	3321767.195	1.460	30°01'33.45783"	92°30'00.61046"	-25.472	VVA
2099	517381.020	3402962.220	30.284	30°45'34.17190"	92°49'06.20200"	3.187	VVA
1 V 22	559904.785	3329490.992	3.500	30°05'42.51371"	92°22'41.88192"	-23.572	Concrete Monument
2 V 36	508112.760	3397687.097	33.388	30°42'43.16798"	92°54'54.98292"	6.292	Concrete Monument
27 V 132	526574.006	3357567.091	11.773	30°20'58.87798"	92°43'24.59396"	-15.654	Concrete Monument
27 V 27	516847.924	3329438.361	1.889	30°05'45.67973"	92°49'30.52915"	-25.245	Concrete Monument
40 V 77	530136.732	3460408.962	54.283	31°16'39.29751"	92°41'00.23963"	27.941	Concrete Monument
57 V 35	576247.491	3301560.664	0.923	29°50'31.89602"	92°12'38.52188"	-25.347	Concrete Monument
57 V 4	584365.864	3327889.815	4.284	30°04'45.29414"	92°07'28.51975"	-22.654	Concrete Monument
A 16	532253.263	3409292.284	35.711	30°48'58.68018"	92°39'46.06218"	8.608	Disk in Structure
BAYNE 2	483608.751	3375710.851	25.295	30°30'48.95392"	93°10'15.00985"	-1.874	Concrete Monument
BUTCH	555099.030	3371107.595	10.742	30°28'15.26805"	92°25'33.56813"	-16.681	Concrete Monument
B 268 Reset	529739.796	3402036.253	31.019	30°45'03.21024"	92°41'21.42001"	3.859	Deep Rod
FGS LA-01	479872.846	3320180.487	1.502	30°00'44.72996"	93°12'31.35766"	-25.531	Aluminum Disk on Rebar
FGS LA-02	575743.307	3442311.624	19.007	31°06'44.03987"	92°12'20.42827"	-7.884	Aluminum Disk on Rebar
FGS LA-03	474535.496	3447459.308	83.549	31°09'39.06654"	93°16'01.87649"	56.942	Aluminum Disk on Rebar
FGS-3R2-1	549803.375	3337152.400	3.824	30°09'53.04206"	92°28'57.97207"	-23.420	Aluminum Disk on Rebar



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

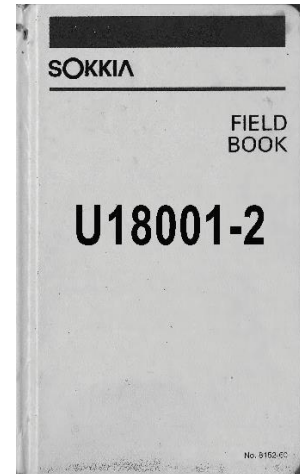
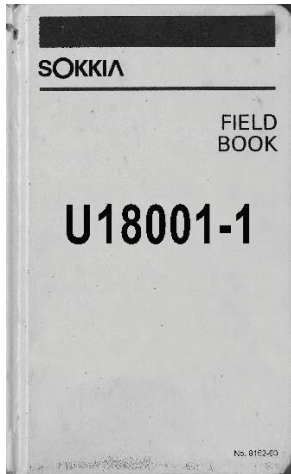
Sub-Contractor: Florabama

Point	Easting(M)	Northing(M)	Elev.(M)	Latitude (Global)	Longitude (Global)	EllipHeight (Global)	Feature Code
GAYLE	546988.451	3309677.168	0.478	29°55'00.85134"	92°30'47.58103"	-26.170	Concrete Monument
MACLAND	589164.852	3392797.628	12.696	30°39'52.43295"	92°04'09.35943"	-14.616	Concrete Monument
R 393	557949.091	3355212.728	8.965	30°19'38.44373"	92°23'49.85809"	-18.459	Disk in Structure
THEUNISSEN	531914.877	3345720.613	5.996	30°14'33.56075"	92°40'05.83480"	-21.360	Concrete Monument
TT 3 R USGS	557652.863	3395720.776	21.477	30°41'34.36923"	92°23'52.85935"	-5.776	Concrete Monument

GEODATABASE COLUMN HEADERS

OBJECTID,Plot_ID,Designation,Setyear,PID,DateFnd,Proj_Name,Client,Cnty,State,Inst_Type,Inst_Agency,Sr vy_Mthd,HZ_Datum,Datum_Adjust,SPC_Zone,CombScaleFact,Epoch,Latitude,Longitude,SPC_Northing,SPC_Easting,VT_Datum,Orthometric,EllipHeight,Geoid_mdl,New,Recovery,PrimeContractor,Quadrangle,RelativeA accuracies_Meters,RelativeAccuracies_Feet,X_East,Y_North,Z_Ellipsoid,Horizontal,Elevation,Horizontal_Mete rs,Horizontal_Feet,UTM_ScaleFactor,UTM_Northing,UTM_Easting,VerticalInfo_Meter,VerticalInfo_Feet,Epo ch,Description1,Description2,Description3

FIELD BOOKS





USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

EQUIPMENT, PERSONNEL & SOFTWARE

Equipment

GPS

<u>Receiver</u>	<u>Part No.</u>	<u>Serial No.</u>	<u>Antenna</u>	<u>Antenna Part Number</u>	<u>Antenna Serial Number</u>
R10 GNSS	90909-60	5310427929	Integrated		
R10 GNSS	90909-60	5413460826	Integrated		
R7 GNSS	60163-00	4726K30342	Zephyr Geodetic 2	57971-00	5112118134
R7 GNSS	60163-00	5131K22021	Zephyr Geodetic 2	57971-00	1441127110

RTN

LSU C4G (Real Time Network) Corrections

For more information regarding LSU's C4G RTN please visit: <https://store.c4g.lsu.edu/>

Data Collectors

Trimble Model TSC3 - SN: RS30C65995 w/ Trimble Access v3.10

Trimble Model TSC3 - SN: RS33C67354 w/ Trimble Access v3.10

Cameras (Geo-Referenced)

IPad Mini with Theodolite App

IPad Mini with Theodolite App

Personnel

Ralph Riggs – Project Surveyor

Wayne Walker – Project Manager (FGS)

Mike Stone – Party Chief / Office Technician (FGS)

Cody Theriot – Survey Technician (FGS)

Billy Wall – Party Chief (FGS)

Chandler Walker – Survey Technician (FGS)

Software

Trimble Business Center

Trimble Access

Microsoft Streets and Trips

Google Earth Pro

Microsoft Word

Microsoft Excel

Theodolite App for IPad Mini



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

CERTIFICATION

All Surveying and Mapping products and related work performed for this project are in compliance with the following Manuals and related technical standards and publications:

[National Geospatial Program Lidar Base Specification Version 1.2](#)

[Positional Accuracy Standards for Digital Geospatial Data](#) (American Society for Photogrammetry and Remote Sensing, 2014)

Thank you,

Dated: 20 March 2018

By: _____

Ralph Lee Riggs, LA PLS #5029

Ruble, Riggs & Shotts, LLC | COA #VF.0000706

102 West Trish Knight Street

West Plains, MO 65775



Ruble, Riggs, & Shotts, L.L.C.



APPENDIX “A” RTK SITE CALIBRATION REPORT

Project File Data		Coordinate System	
Name:	C:\LA_Bayou_Nezpique\TBC Project\LA Bayou Nezpique.vce	Name:	World wide/UTM
Size:	204 KB	Datum:	NAD 1983 (Conus)
Modified:	3/8/2018 4:19:42 PM (UTC:-6)	Zone:	15 North
Time zone:	Central Standard Time	Geoid:	GEOID12B (Conus)
Reference number:	U18001	Vertical datum:	NAVD88
Description:	LiDAR Control and Ground Truthing Project	Calibrated site:	

Additional Coordinate System Details

Local Site Settings			
Project latitude:	N30°27'47.85648”	Ground scale factor:	1
Project longitude:	W92°36'34.57481”	False easting offset:	0.000 m
Project height:	9.144 m	False northing offset:	0.000 m

Site Calibration Report

Horizontal Calibration Parameters

Translation east:	0.001 m
Translation north:	0.008 m
Rotation:	-0°00'00"
Origin easting:	522207.977 m
Origin northing:	3378012.328 m
Scale factor:	1.0000000000

Vertical Calibration Parameters

Vertical shift at origin:	0.022 m
Slope east:	-0.085 ppm
Slope north:	0.188 ppm
Origin easting:	508112.764 m
Origin northing:	3397687.083 m



Residual Differences Between GPS and Known Coordinates

Summary

	Maximum residual	Root Mean Square residual	Point
Horizontal	0.016 m	0.009 m	BAYNE 2
Vertical	0.026 m	0.016 m	FGS-3R2-1_1
Three-dimensional	0.027 m	0.019 m	2 V 36_1

Point Residuals

Residuals sign: Calculated-Control

GNSS Point		Calculated Point		Grid Point	
Point	2 V 36_1	Point	2 V 36_1	Point	2 V 36_OPUS
Latitude	N30°42'43.16755"	Easting	508112.764 m	Easting	508112.760 m
Longitude	W92°54'54.98276"	Northing	3397687.084 m	Northing	3397687.097 m
Height	6.315 m	Elevation	33.411 m	Elevation	33.388 m
		Horiz. residual	0.014 m	Type	Horz and Vert
		Vert. residual	0.023 m		
		3D residual	0.027 m		
Point	FGS-3R2-1	Point	FGS-3R2-1	Point	FGS-3R2_OPUS
Latitude	N30°09'53.04196"	Easting	549803.378 m	Easting	549803.375 m
Longitude	W92°28'57.97198"	Northing	3337152.397 m	Northing	3337152.400 m
Height	-23.394 m	Elevation	3.850 m	Elevation	3.824 m
		Horiz. residual	0.004 m	Type	Horz and Vert
		Vert. residual	0.026 m		
		3D residual	0.026 m		
Point	57 V 35_1	Point	57 V 35_1	Point	57 V 35_OPUS
Latitude	N29°50'31.89613"	Easting	576247.492 m	Easting	576247.491 m
Longitude	W92°12'38.52185"	Northing	3301560.667 m	Northing	3301560.664 m
Height	-25.363 m	Elevation	0.907 m	Elevation	0.923 m
		Horiz. residual	0.004 m	Type	Horz and Vert
		Vert. residual	-0.016 m		
		3D residual	0.017 m		



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

Point	BAYNE 2	Point	BAYNE 2	Point	Bayne 2_OPUS
Latitude	N30°30'48.95394"	Easting	483608.735 m	Easting	483608.751 m
Longitude	W93°10'15.01046"	Northing	3375710.852 m	Northing	3375710.851 m
Height	-1.866 m	Elevation	25.302 m	Elevation	25.295 m
		Horiz. residual	0.016 m	Type	Horz and Vert
		Vert. residual	0.007 m		
		3D residual	0.018 m		
Point	B 268_2	Point	B 268_2	Point	B 268_OPUS
Latitude	N30°45'03.21017"	Easting	529739.796 m	Easting	529739.796 m
Longitude	W92°41'21.42001"	Northing	3402036.251 m	Northing	3402036.253 m
Height	3.860 m	Elevation	31.020 m	Elevation	31.019 m
		Horiz. residual	0.002 m	Type	Horz and Vert
		Vert. residual	0.001 m		
		3D residual	0.003 m		
Point	FGS LA-01_1	Point	FGS LA-01_1	Point	FGS LA-01_OPUS
Latitude	N30°00'44.73009"	Easting	479872.850 m	Easting	479872.846 m
Longitude	W93°12'31.35752"	Northing	3320180.491 m	Northing	3320180.487 m
Height	-25.548 m	Elevation	1.485 m	Elevation	1.502 m
		Horiz. residual	0.006 m	Type	Horz and Vert
		Vert. residual	-0.017 m		
		3D residual	0.018 m		
Point	FGS LA-02_2	Point	FGS LA-02_2	Point	FGS LA-02_OPUS
Latitude	N31°06'44.04004"	Easting	575743.304 m	Easting	575743.307 m
Longitude	W92°12'20.42837"	Northing	3442311.629 m	Northing	3442311.624 m
Height	-7.895 m	Elevation	18.996 m	Elevation	19.007 m
		Horiz. residual	0.006 m	Type	Horz and Vert
		Vert. residual	-0.011 m		
		3D residual	0.012 m		
Point	FGS LA-03_1	Point	FGS LA-03_1	Point	FGS LA-03_OPUS
Latitude	N31°09'39.06673"	Easting	474535.504 m	Easting	474535.496 m
Longitude	W93°16'01.87620"	Northing	3447459.314 m	Northing	3447459.308 m
Height	56.928 m	Elevation	83.536 m	Elevation	83.549 m
		Horiz. residual	0.010 m	Type	Horz and Vert
		Vert. residual	-0.013 m		
		3D residual	0.017 m		



APPENDIX "B" NGS DATASHEETS

BK0364 *****

BK0364 HT_MOD - This is a Height Modernization Survey Station.

BK0364 DESIGNATION - 1 V 22

BK0364 PID - BK0364

BK0364 STATE/COUNTY- LA/ACADIA

BK0364 COUNTRY - US

BK0364 USGS QUAD - WRIGHT (1987)

BK0364

BK0364 *CURRENT SURVEY CONTROL

BK0364

BK0364* NAD 83(2011) POSITION- 30 05 42.51405(N) 092 22 41.88245(W) ADJUSTED

BK0364* NAD 83(2011) ELLIP HT- -23.524 (meters) (06/27/12) ADJUSTED

BK0364* NAD 83(2011) EPOCH - 2010.00

BK0364* [NAVD 88](#) ORTHO HEIGHT - *(meters) *(feet) NOT PUB

BK0364 **This station is located in a suspected subsidence area (see below).

BK0364

BK0364 NAVD 88 orthometric height was determined with geoid model GEOID03

BK0364 GEOID HEIGHT - -27.150 (meters) GEOID03

BK0364 GEOID HEIGHT - -27.067 (meters) GEOID12B

BK0364 NAD 83(2011) X - -229,187.501 (meters) COMP

BK0364 NAD 83(2011) Y - -5,518,197.886 (meters) COMP

BK0364 NAD 83(2011) Z - 3,179,491.429 (meters) COMP

BK0364 LAPLACE CORR - 0.36 (seconds) DEFLEC12B

BK0364

BK0364 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

BK0364 Standards:

	FGDC (95% conf, cm)		Standard deviation (cm)			CorrNE (unitless)
	Horiz	Ellip	SD_N	SD_E	SD_h	
NETWORK	0.64	3.27	0.12	0.32	1.67	0.05114471

BK0364 -----

BK0364 Click [here](#) for local accuracies and other accuracy information.

BK0364

BK0364

BK0364.The horizontal coordinates were established by GPS observations

BK0364.and adjusted by the National Geodetic Survey in June 2012.

BK0364

BK0364.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

BK0364.been affixed to the stable North American tectonic plate. See

BK0364.[NA2011](#) for more information.

BK0364

BK0364.The horizontal coordinates are valid at the epoch date displayed above

BK0364.which is a decimal equivalence of Year/Month/Day.

BK0364

BK0364 ** This station is in an area of known vertical motion. If an

BK0364 ** orthometric height was ever established but is not available

BK0364 ** in the current survey control section, the orthometric height

BK0364 ** is considered suspect. Suspect heights are available in the

BK0364 ** superseded section only if requested.

BK0364

BK0364.The orthometric height was determined by GPS observations and a

BK0364.high-resolution geoid model using precise GPS observation and

BK0364.processing techniques.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0364

BK0364.Significant digits in the geoid height do not necessarily reflect accuracy.

BK0364.GEOID12B height accuracy estimate available [here](#).

BK0364

BK0364.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BK0364

BK0364.The Laplace correction was computed from DEFLEC12B derived deflections.

BK0364

BK0364.The ellipsoidal height was determined by GPS observations

BK0364.and is referenced to NAD 83.

BK0364

BK0364. The following values were computed from the NAD 83(2011) position.

BK0364

BK0364;		North	East	Units	Scale Factor	Converg.
BK0364;SPC LA S	-	177,271.772	899,280.044	MT	0.99992709	-0 31 21.0
BK0364;SPC LA S	-	581,599.14	2,950,387.94	sFT	0.99992709	-0 31 21.0
BK0364;UTM 15	-	3,329,490.994	559,904.769	MT	0.99964427	+0 18 42.3

BK0364

BK0364! - Elev Factor x Scale Factor = Combined Factor

BK0364!SPC LA S - 1.00000369 x 0.99992709 = 0.99993078

BK0364!UTM 15 - 1.00000369 x 0.99964427 = 0.99964796

BK0364

BK0364_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP5990429490 (NAD 83)

BK0364

BK0364 SUPERSEDED SURVEY CONTROL

BK0364

BK0364	NAD 83(2007)-	30 05 42.51416(N)	092 22 41.88346(W)	AD(2006.81) A
BK0364	ELLIP H (03/12/08)	-23.512 (m)		GP(2006.81) 3 1

BK0364

BK0364.Superseded values are not recommended for survey control.

BK0364

BK0364.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BK0364.See file [dsdata.pdf](#) to determine how the superseded data were derived.

BK0364

BK0364_MARKER: DD = SURVEY DISK

BK0364_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

BK0364_STAMPING: 1V22 1968

BK0364_MARK LOGO: LADHGS

BK0364_PROJECTION: FLUSH

BK0364_MAGNETIC: N = NO MAGNETIC MATERIAL

BK0364_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK0364+STABILITY: SURFACE MOTION

BK0364_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BK0364+SATELLITE: SATELLITE OBSERVATIONS - June 05, 2006

BK0364

BK0364	HISTORY	- Date	Condition	Report By
BK0364	HISTORY	- 1968	MONUMENTED	LADTD
BK0364	HISTORY	- 20060510	GOOD	NGS
BK0364	HISTORY	- 20060605	GOOD	NGS

BK0364

BK0364 STATION DESCRIPTION

BK0364

BK0364'DESCRIBED BY LA TRANSP AND DEV 1968

BK0364'9.05 MI SE FROM MORSE.

BK0364'ABOUT 1.05 MILES SOUTH ALONG LOUISIANA HIGHWAY 91 FROM THE



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0364' INTERSECTION OF LOUISIANA HIGHWAYS 91 AND 92 IN MORSE TO THE
BK0364' INTERSECTION OF LOUISIANA HIGHWAYS 91 AND 1115. THENCE ABOUT 8.00
BK0364' MILES SOUTHEAST ALONG LOUISIANA HIGHWAY 1115. IN SECTION 9, T11S,
BK0364' R1E. LOCATED IN THE SOUTHWEST CORNER OF THE ST. JOHN CEMETERY IN THE
BK0364' VILLAGE OF LYONS POINT, 255.0 FEET NORTH OF THE CENTERLINE OF
BK0364' LOUISIANA HIGHWAY 1115, 25.5 FEET EAST OF THE CENTERLINE OF A BLACKTOP
BK0364' ROAD LEADING NORTH, 94.3 FEET NORTHWEST OF THE NORTHWEST CORNER OF ST.
BK0364' JOHN THE BAPTIST CATHOLIC CHURCH, 0.6 FOOT EAST OF A CHAIN-LINK FENCE,
BK0364' 0.7 FOOT NORTH OF A CHAIN-LINK FENCE. SET IN TOP OF A CONCRETE POST
BK0364' SET FLUSH WITH THE GROUND. A STEEL WITNESS POST IS SET 1.0 FOOT NORTH
BK0364' OF THE MARK.

BK0364

BK0364

STATION RECOVERY (2006)

BK0364

BK0364' RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RWA)

BK0364' RECOVERED AS DESCRIBED.

BK0364

BK0364

STATION RECOVERY (2006)

BK0364

BK0364' RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)

BK0364' RECOVERED IN GOOD CONDITION AS DESCRIBED.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1142 *****

BK1142 DESIGNATION - 2 V 36 LADTD
BK1142 PID - BK1142
BK1142 STATE/COUNTY- LA/ALLEN
BK1142 COUNTRY - US
BK1142 USGS QUAD - MITTIE (1993)

BK1142

BK1142 *CURRENT SURVEY CONTROL

BK1142

BK1142* NAD 83(1986) POSITION- 30 42 43.16 (N) 092 54 54.98 (W) HD_HELD1

BK1142* NAVD 88 ORTHO HEIGHT - 33.47 (+/-2cm) 109.8 (feet) VERTCON

BK1142

BK1142 GEOID HEIGHT - -27.074 (meters) GEOID12B

BK1142 VERT ORDER - SECOND CLASS 0 (See Below)

BK1142

BK1142.The horizontal coordinates were determined by differentially corrected
BK1142.hand held GPS observations or other comparable positioning techniques
BK1142.and have an estimated accuracy of +/- 3 meters.

BK1142.

BK1142.The NAVD 88 height was computed by applying the VERTCON shift value to
BK1142.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)

BK1142

BK1142.Significant digits in the geoid height do not necessarily reflect accuracy.
BK1142.GEOID12B height accuracy estimate available here.

BK1142

BK1142.The vertical order pertains to the NGVD 29 superseded value.

BK1142

BK1142; North East Units Estimated Accuracy
BK1142;SPC LA S - 246,238.5 848,470.4 MT (+/- 3 meters HH1 GPS)

BK1142

BK1142_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP0811297686(NAD 83)

BK1142

BK1142 SUPERSEDED SURVEY CONTROL

BK1142

BK1142 NGVD 29 (11/26/84) 33.486 (m) 109.86 (f) ADJUSTED 2 0

BK1142

BK1142.Superseded values are not recommended for survey control.

BK1142

BK1142.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BK1142.See file dsdata.pdf to determine how the superseded data were derived.

BK1142

BK1142_MARKER: DD = SURVEY DISK

BK1142_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

BK1142_STAMPING: 2V36 1970

BK1142_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK1142+STABILITY: SURFACE MOTION

BK1142

BK1142 HISTORY - Date Condition Report By

BK1142 HISTORY - 1970 MONUMENTED LADTD

BK1142 HISTORY - 20011229 GOOD USPSQD

BK1142

BK1142 STATION DESCRIPTION

BK1142

BK1142'DESCRIBED BY LA TRANSP AND DEV 1970

BK1142'11.60 MI W FROM OBERLIN.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1142'ABOUT 11.6 MILES WEST ALONG STATE ROUTE 26 FROM THE MISSOURI PACIFIC
BK1142'RAILROAD DEPOT AT OBERLIN, 56 FEET SOUTH OF THE CENTERLINE OF LA. 26,
BK1142'44 FEET NORTH OF THE CENTERLINE OF A PRIVATE DRIVE LEADING NORTHWEST,
BK1142'36 FEET NORTHWEST OF THE NORTHWEST CORNER OF A WOODEN CATTLE GUARD ON
BK1142'THE PRIVATE DRIVE, 1 FOOT NORTH OF A 3 STRAND BARBED WIRE FENCE, 15.5
BK1142'FEET SOUTHEAST OF A POLE BEARING A UNDERGROUND CABLE TROUBLE BOX, 1.2
BK1142'FEET SOUTH OF A STEEL WITNESS POST, ABOUT LEVEL WITH HIGHWAY, SET IN
BK1142'THE TOP OF A CONCRETE POST PROJECTING 4 INCHES. SECTION 18, T 4S, R
BK1142'5W.

BK1142

BK1142

STATION RECOVERY (2001)

BK1142

BK1142'RECOVERY NOTE BY US POWER SQUADRON 2001 (CHN)

BK1142'WEST OF MACKIE DUPECHAIN ROAD.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0849 *****

BK0849 HT_MOD - This is a Height Modernization Survey Station.

BK0849 DESIGNATION - 27 V 27

BK0849 PID - BK0849

BK0849 STATE/COUNTY- LA/JEFFERSON DAVIS

BK0849 COUNTRY - US

BK0849 USGS QUAD - THORNWELL (1985)

BK0849

BK0849 *CURRENT SURVEY CONTROL

BK0849

BK0849* NAD 83(2011) POSITION- 30 05 45.67852(N) 092 49 30.52983(W) ADJUSTED

BK0849* NAD 83(2011) ELLIP HT- -25.217 (meters) (06/27/12) ADJUSTED

BK0849* NAD 83(2011) EPOCH - 2010.00

BK0849* [NAVD 88](#) ORTHO HEIGHT - *(meters) *(feet) NOT PUB

BK0849 **This station is located in a suspected subsidence area (see below).

BK0849

BK0849 NAVD 88 orthometric height was determined with an earlier geoid model

BK0849 GEOID HEIGHT - -27.126 (meters) GEOID12B

BK0849 NAD 83(2011) X - -272,213.723 (meters) COMP

BK0849 NAD 83(2011) Y - -5,516,192.401 (meters) COMP

BK0849 NAD 83(2011) Z - 3,179,574.886 (meters) COMP

BK0849 LAPLACE CORR - 0.39 (seconds) DEFLEC12B

BK0849

BK0849 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

BK0849 Standards:

	FGDC (95% conf, cm)		Standard deviation (cm)			CorrNE (unitless)
	Horiz	Ellip	SD_N	SD_E	SD_h	
NETWORK	0.70	2.80	0.14	0.35	1.43	0.04681111

BK0849 -----

BK0849 Click [here](#) for local accuracies and other accuracy information.

BK0849

BK0849

BK0849.The horizontal coordinates were established by GPS observations

BK0849.and adjusted by the National Geodetic Survey in June 2012.

BK0849

BK0849.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

BK0849.been affixed to the stable North American tectonic plate. See

BK0849.[NA2011](#) for more information.

BK0849

BK0849.The horizontal coordinates are valid at the epoch date displayed above

BK0849.which is a decimal equivalence of Year/Month/Day.

BK0849

BK0849 ** This station is in an area of known vertical motion. If an

BK0849 ** orthometric height was ever established but is not available

BK0849 ** in the current survey control section, the orthometric height

BK0849 ** is considered suspect. Suspect heights are available in the

BK0849 ** superseded section only if requested.

BK0849

BK0849.The orthometric height was determined by GPS observations and a

BK0849.high-resolution geoid model using precise GPS observation and

BK0849.processing techniques.

BK0849

BK0849.Significant digits in the geoid height do not necessarily reflect accuracy.

BK0849.GEOID12B height accuracy estimate available [here](#).



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0849
BK0849.The X, Y, and Z were computed from the position and the ellipsoidal ht.
BK0849
BK0849.The Laplace correction was computed from DEFLEC12B derived deflections.
BK0849
BK0849.The ellipsoidal height was determined by GPS observations
BK0849.and is referenced to NAD 83.

BK0849
BK0849. The following values were computed from the NAD 83(2011) position.
BK0849
BK0849; North East Units Scale Factor Converg.
BK0849;SPC LA S - 177,845.937 856,213.749 MT 0.99992712 -0 44 45.3
BK0849;SPC LA S - 583,482.88 2,809,094.61 sFT 0.99992712 -0 44 45.3
BK0849;UTM 15 - 3,329,438.316 516,847.904 MT 0.99960350 +0 05 15.6
BK0849! - Elev Factor x Scale Factor = Combined Factor
BK0849!SPC LA S - 1.00000396 x 0.99992712 = 0.99993108
BK0849!UTM 15 - 1.00000396 x 0.99960350 = 0.99960746

BK0849 U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP1684729438 (NAD 83)

SUPERSEDED SURVEY CONTROL

BK0849 NAD 83(2007)- 30 05 45.67858(N) 092 49 30.53122(W) AD() 0
BK0849 ELLIP H (02/10/07) -25.204 (m) GP()
BK0849 NAD 83(1992)- 30 05 45.67843(N) 092 49 30.53102(W) AD(2004.65) B
BK0849 ELLIP H (06/22/05) -25.202 (m) GP(2004.65) 4 1

BK0849.Superseded values are not recommended for survey control.
BK0849
BK0849.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BK0849.See file dsdata.pdf to determine how the superseded data were derived.

BK0849_MARKER: DD = SURVEY DISK
BK0849_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
BK0849_STAMPING: 27V27 1969
BK0849_MARK LOGO: LADHGS
BK0849_PROJECTION: PROJECTING 8 CENTIMETERS
BK0849_MAGNETIC: N = NO MAGNETIC MATERIAL
BK0849_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
BK0849+STABILITY: SURFACE MOTION
BK0849_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BK0849+SATELLITE: SATELLITE OBSERVATIONS - March 24, 2006

BK0849 HISTORY - Date Condition Report By
BK0849 HISTORY - 1969 MONUMENTED LADTD
BK0849 HISTORY - 1970 GOOD LADTD
BK0849 HISTORY - 19961209 GOOD USPSQD
BK0849 HISTORY - 20031230 GOOD USPSQD
BK0849 HISTORY - 20040601 GOOD NGS
BK0849 HISTORY - 20040624 GOOD JCLS
BK0849 HISTORY - 20051017 GOOD NGS
BK0849 HISTORY - 20060324 GOOD NGS

STATION DESCRIPTION



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0849
BK0849'DESCRIBED BY LA TRANSP AND DEV 1970
BK0849'2.1 MI N FROM THORNWELL.
BK0849'ABOUT 2.1 MILES NORTH ALONG STATE ROUTE 99 FROM THE INTERSECTION OF
BK0849'LA. 99 AND LA. 14, 205 FEET EAST OF THE CENTERLINE OF LA. 99, 104 FEET
BK0849'SOUTHWEST OF THE SOUTHWEST CORNER OF A CYCLONE FENCE WITH HIGH VOLTAGE
BK0849'TRANSFORMERS, 45 FEET NORTH OF THE CENTERLINE OF LA. 380, 7 FEET
BK0849'NORTHWEST OF A POWER POLE, 1 FOOT SOUTHWEST OF A 4 STRAND BARBED WIRE
BK0849'FENCE, 1 1/2 FEET EAST OF A STEEL WITNESS POST, 1 FOOT BELOW LEVEL OF
BK0849'ROADWAY, SET IN THE TOP OF A CONCRETE POST PROJECTING 3 INCHES. SEC 7,
BK0849'T11S, R4W.
BK0849
BK0849 STATION RECOVERY (1996)
BK0849
BK0849'RECOVERY NOTE BY US POWER SQUADRON 1996
BK0849'RECOVERED IN GOOD CONDITION.
BK0849
BK0849 STATION RECOVERY (2003)
BK0849
BK0849'RECOVERY NOTE BY US POWER SQUADRON 2003
BK0849'RECOVERED IN GOOD CONDITION.
BK0849
BK0849 STATION RECOVERY (2004)
BK0849
BK0849'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
BK0849'RECOVERED AS DESCRIBED.
BK0849
BK0849 STATION RECOVERY (2004)
BK0849
BK0849'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2004 (JKH)
BK0849'THE 1970 DESCRIPTION SHOULD READ 1.6 MI WEST FROM THORNWELL INSTEAD OF
BK0849'2.1 MI N FROM THORNWELL. ALSO, 4 STRAND BARB WIRE NO LONGER EXISTS.
BK0849
BK0849 STATION RECOVERY (2005)
BK0849
BK0849'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (JBW)
BK0849'RECOVERED IN GOOD CONDITION.
BK0849
BK0849 STATION RECOVERY (2006)
BK0849
BK0849'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
BK0849'RECOVERED AS DESCRIBED.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1020 *****

BK1020 HT_MOD - This is a Height Modernization Survey Station.

BK1020 DESIGNATION - 27 V 132

BK1020 PID - BK1020

BK1020 STATE/COUNTY- LA/JEFFERSON DAVIS

BK1020 COUNTRY - US

BK1020 USGS QUAD - HATHAWAY (1994)

BK1020

BK1020

BK1020

*CURRENT SURVEY CONTROL

BK1020* NAD 83(2011) POSITION- 30 20 58.87740(N) 092 43 24.59443(W) ADJUSTED

BK1020* NAD 83(2011) ELLIP HT- -15.656 (meters) (06/27/12) ADJUSTED

BK1020* NAD 83(2011) EPOCH - 2010.00

BK1020* [NAVD 88](#) ORTHO HEIGHT - *(meters) *(feet) NOT PUB

BK1020 **This station is located in a suspected subsidence area (see below).

BK1020

BK1020 NAVD 88 orthometric height was determined with geoid model GEOID03

BK1020 GEOID HEIGHT - -27.385 (meters) GEOID03

BK1020 GEOID HEIGHT - -27.414 (meters) GEOID12B

BK1020 NAD 83(2011) X - -261,754.807 (meters) COMP

BK1020 NAD 83(2011) Y - -5,502,536.092 (meters) COMP

BK1020 NAD 83(2011) Z - 3,203,877.788 (meters) COMP

BK1020 LAPLACE CORR - -0.29 (seconds) DEFLEC12B

BK1020

BK1020 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

BK1020 Standards:

BK1020 FGDC (95% conf, cm) Standard deviation (cm) CorrNE

BK1020 Horiz Ellip SD_N SD_E SD_h (unitless)

BK1020 NETWORK 0.82 3.41 0.14 0.41 1.74 0.00127571

BK1020 -----

BK1020 Click [here](#) for local accuracies and other accuracy information.

BK1020

BK1020

BK1020.The horizontal coordinates were established by GPS observations

BK1020.and adjusted by the National Geodetic Survey in June 2012.

BK1020

BK1020.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

BK1020.been affixed to the stable North American tectonic plate. See

BK1020.[NA2011](#) for more information.

BK1020

BK1020.The horizontal coordinates are valid at the epoch date displayed above

BK1020.which is a decimal equivalence of Year/Month/Day.

BK1020

BK1020 ** This station is in an area of known vertical motion. If an

BK1020 ** orthometric height was ever established but is not available

BK1020 ** in the current survey control section, the orthometric height

BK1020 ** is considered suspect. Suspect heights are available in the

BK1020 ** superseded section only if requested.

BK1020

BK1020.The orthometric height was determined by GPS observations and a

BK1020.high-resolution geoid model using precise GPS observation and

BK1020.processing techniques.

BK1020

BK1020.Significant digits in the geoid height do not necessarily reflect accuracy.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1020.GEOID12B height accuracy estimate available [here](#).

BK1020

BK1020.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BK1020

BK1020.The Laplace correction was computed from DEFLEC12B derived deflections.

BK1020

BK1020.The ellipsoidal height was determined by GPS observations

BK1020.and is referenced to NAD 83.

BK1020

BK1020. The following values were computed from the NAD 83(2011) position.

BK1020

BK1020;		North	East	Units	Scale	Factor	Converg.
BK1020;SPC LA S	-	205,839.299	866,351.632	MT	0.99994421	-0 41	42.4
BK1020;SPC LA S	-	675,324.43	2,842,355.31	sFT	0.99994421	-0 41	42.4
BK1020;UTM 15	-	3,357,567.066	526,573.992	MT	0.99960871	+0 08	23.0
BK1020!	-	Elev Factor x Scale Factor = Combined Factor					
BK1020!SPC LA S	-	1.00000246	x	0.99994421	=	0.99994667	
BK1020!UTM 15	-	1.00000246	x	0.99960871	=	0.99961117	

BK1020

BK1020_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP2657357567 (NAD 83)

BK1020

SUPERSEDED SURVEY CONTROL

BK1020

BK1020	NAD 83(2007)-	30 20 58.87746(N)	092 43 24.59536(W)	AD(2006.81)	A
BK1020	ELLIP H (03/12/08)	-15.646 (m)		GP(2006.81)	3 1

BK1020

BK1020.Superseded values are not recommended for survey control.

BK1020

BK1020.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BK1020.See file [dsdata.pdf](#) to determine how the superseded data were derived.

BK1020

BK1020_MARKER: DD = SURVEY DISK

BK1020_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

BK1020_STAMPING: 27V132 1970

BK1020_MARK LOGO: LADHGS

BK1020_PROJECTION: FLUSH

BK1020_MAGNETIC: N = NO MAGNETIC MATERIAL

BK1020_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK1020+STABILITY: SURFACE MOTION

BK1020_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BK1020+SATELLITE: SATELLITE OBSERVATIONS - June 13, 2006

BK1020

BK1020	HISTORY	-	Date	Condition	Report By
BK1020	HISTORY	-	1970	MONUMENTED	LADTD
BK1020	HISTORY	-	19970125	GOOD	USPSQD
BK1020	HISTORY	-	19981017	GOOD	USPSQD
BK1020	HISTORY	-	20021211	GOOD	USPSQD
BK1020	HISTORY	-	20040105	GOOD	USPSQD
BK1020	HISTORY	-	20060613	GOOD	NGS

BK1020

STATION DESCRIPTION

BK1020

BK1020'DESCRIBED BY LA TRANSP AND DEV 1970

BK1020'3.25 MI W FROM HATHAWAY.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1020'ABOUT 3.25 MILES WEST ALONG STATE ROUTE 102 FROM THE HATHAWAY SCHOOL,
BK1020'55 FEET SOUTH OF THE CENTERLINE OF LA. 102, 40 FEET EAST OF THE
BK1020'CENTERLINE OF A PARISH ROAD LEADING SOUTH, 35 FEET SOUTHEAST OF A
BK1020'RIGHT OF WAY MARKER, 1.5 FEET NORTHWEST OF A 4 STRAND BARBED WIRE
BK1020'FENCE, 161 FEET SOUTHEAST OF THE SOUTHEAST CORNER OF A WOOD FRAME
BK1020'HOUSE BELONGING TO A MR. JOHN REEVES, 1 FOOT SOUTH OF A STEEL WITNESS
BK1020'POST, ABOUT LEVEL WITH HIGHWAY, SET IN THE TOP OF A CONCRETE POST
BK1020'PROJECTING 4 INCHES. SECTION 19, T8S, R3W.

BK1020

BK1020 STATION RECOVERY (1997)

BK1020

BK1020'RECOVERY NOTE BY US POWER SQUADRON 1997

BK1020'RECOVERED IN GOOD CONDITION.

BK1020

BK1020 STATION RECOVERY (1998)

BK1020

BK1020'RECOVERY NOTE BY US POWER SQUADRON 1998

BK1020'RECOVERED IN GOOD CONDITION.

BK1020

BK1020 STATION RECOVERY (2002)

BK1020

BK1020'RECOVERY NOTE BY US POWER SQUADRON 2002 (DH)

BK1020'RECOVERED IN GOOD CONDITION.

BK1020

BK1020 STATION RECOVERY (2004)

BK1020

BK1020'RECOVERY NOTE BY US POWER SQUADRON 2004 (DH)

BK1020'RECOVERED IN GOOD CONDITION.

BK1020

BK1020 STATION RECOVERY (2006)

BK1020

BK1020'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)

BK1020'MARK RECOVERED IN GOOD CONDITION. TO REACH FROM I-10 EXIT 59 FOR

BK1020'ROANOKE LA, GO 7.2 MI (11.6 KM) NORTH ON LA-395 (LIBERTY CEMETERY

BK1020'ROAD) TO LA-102 (PINE ISLAND HIGHWAY). TURN RIGHT AND GO 1.05 MI (1.7

BK1020'KM) EAST TO MARK ON RIGHT IN SE QUADRANT OF FARM SUPPLY ROAD

BK1020'INTERSECTION. THIS LOCATION IS ALSO 3.2 MI (5.1 KM) WEST OF HATHAWAY

BK1020'SCHOOL, JUNCTION OF LA-26 AND LA-102. MARK IS 55 FT (16.8 M) SOUTH OF

BK1020'HIGHWAY CENTERLINE, 41 FT (12.5 M) EAST OF FARM SUPPLY ROAD

BK1020'CENTERLINE, 34.5 FT (10.5 M) SOUTHEAST OF LA-102 R.O.W., 10 FT (3.0 M)

BK1020'EAST OF A GAS METER, 2 FT (0.6 M) WEST OF SECURITY ANCHOR AND 1 FT

BK1020'(0.3 M) SOUTH OF GREEN PAINTED WITNESS POST.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BX1227 *****

BX1227 DESIGNATION - 40 V 77 LADH
BX1227 PID - BX1227
BX1227 STATE/COUNTY- LA/RAPIDES
BX1227 COUNTRY - US
BX1227 USGS QUAD - GARDNER (1992)
BX1227

BX1227 *CURRENT SURVEY CONTROL
BX1227

BX1227* NAD 83(1986) POSITION- 31 16 39. (N) 092 41 00. (W) SCALED
BX1227* [NAVD 88](#) ORTHO HEIGHT - 54.40 (+/-2cm) 178.5 (feet) VERTCON
BX1227
BX1227 GEOID HEIGHT - -26.310 (meters) GEOID12B
BX1227 VERT ORDER - SECOND CLASS 0 (See Below)

BX1227
BX1227.The horizontal coordinates were scaled from a topographic map and have
BX1227.an estimated accuracy of +/- 6 seconds.

BX1227.
BX1227.The NAVD 88 height was computed by applying the VERTCON shift value to
BX1227.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)

BX1227
BX1227.Significant digits in the geoid height do not necessarily reflect accuracy.
BX1227.GEOID12B height accuracy estimate available [here](#).

BX1227
BX1227.The vertical order pertains to the NGVD 29 superseded value.

BX1227
BX1227;

	North	East	Units	Estimated Accuracy
BX1227;SPC LA N -	86,220.	982,540.	MT	(+/- 180 meters Scaled)

BX1227 U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWQ301603(NAD 83)
BX1227

BX1227 SUPERSEDED SURVEY CONTROL
BX1227

BX1227 NGVD 29 (11/26/84) 54.398 (m) 178.47 (f) ADJUSTED 2 0
BX1227

BX1227.Superseded values are not recommended for survey control.
BX1227

BX1227.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BX1227.See file [dsdata.pdf](#) to determine how the superseded data were derived.
BX1227

BX1227_MARKER: DD = SURVEY DISK
BX1227_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
BX1227_STAMPING: 40V77 1968
BX1227_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
BX1227+STABILITY: SURFACE MOTION

BX1227

HISTORY	- Date	Condition	Report By
BX1227 HISTORY	- 1968	MONUMENTED	LADH
BX1227 HISTORY	- 1969	GOOD	LADTD
BX1227 HISTORY	- 19990424	GOOD	USPSQD

BX1227
BX1227 STATION DESCRIPTION

BX1227
BX1227'DESCRIBED BY LA TRANSP AND DEV 1969
BX1227'1.15 MI N FROM GARDNER.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BX1227'ABOUT 1.15 MILES NORTH ALONG LOUISIANA HIGHWAY 28 FROM THE POST OFFICE
BX1227'AT GARDNER. 0.95 MILE NORTH OF BENCH MARK 40V76. 42.5 FEET WEST OF
BX1227'CENTERLINE OF LOUISIANA HIGHWAY 121. 1.5 FEET NORTHEAST OF THE
BX1227'NORTHEAST CORNER OF CYCLONE FENCE OF CHURCH YARD. 135 FEET NORTHEAST
BX1227'OF THE CENTER OF A METAL CATTLE GUARD GOING INTO CHURCH YARD. 156 FEET
BX1227'EAST OF THE NORTHEAST CORNER OF THE ANNEX BUILDING TO THE CALVARY
BX1227'BAPTIST CHURCH. DISK IN TOP OF CONCRETE POST PROJECTION 4 INCHES. A
BX1227'STEEL WITNESS POST IS SET 1 FOOT SOUTH OF THE MARK.

BX1227

BX1227

STATION RECOVERY (1999)

BX1227

BX1227'RECOVERY NOTE BY US POWER SQUADRON 1999

BX1227'RECOVERED IN GOOD CONDITION.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0412 *****

BK0412 HT_MOD - This is a Height Modernization Survey Station.

BK0412 DESIGNATION - 57 V 4

BK0412 PID - BK0412

BK0412 STATE/COUNTY- LA/VERMILION

BK0412 COUNTRY - US

BK0412 USGS QUAD - MILTON (1994)

BK0412

BK0412 *CURRENT SURVEY CONTROL

BK0412

BK0412* NAD 83(2011) POSITION- 30 04 45.29334(N) 092 07 28.52013(W) ADJUSTED

BK0412* NAD 83(2011) ELLIP HT- -22.645 (meters) (06/27/12) ADJUSTED

BK0412* NAD 83(2011) EPOCH - 2010.00

BK0412* [NAVD 88](#) ORTHO HEIGHT - *(meters) *(feet) NOT PUB

BK0412 **This station is located in a suspected subsidence area (see below).

BK0412

BK0412 NAVD 88 orthometric height was determined with geoid model GEOID03

BK0412 GEOID HEIGHT - -27.090 (meters) GEOID03

BK0412 GEOID HEIGHT - -26.935 (meters) GEOID12B

BK0412 NAD 83(2011) X - -204,782.947 (meters) COMP

BK0412 NAD 83(2011) Y - -5,520,042.111 (meters) COMP

BK0412 NAD 83(2011) Z - 3,177,967.296 (meters) COMP

BK0412 LAPLACE CORR - 0.38 (seconds) DEFLEC12B

BK0412

BK0412 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

BK0412 Standards:

	FGDC (95% conf, cm)		Standard deviation (cm)			CorrNE (unitless)
	Horiz	Ellip	SD_N	SD_E	SD_h	
NETWORK	0.60	2.88	0.12	0.30	1.47	0.01733998

BK0412 -----

BK0412 Click [here](#) for local accuracies and other accuracy information.

BK0412

BK0412

BK0412.The horizontal coordinates were established by GPS observations

BK0412.and adjusted by the National Geodetic Survey in June 2012.

BK0412

BK0412.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

BK0412.been affixed to the stable North American tectonic plate. See

BK0412.[NA2011](#) for more information.

BK0412

BK0412.The horizontal coordinates are valid at the epoch date displayed above

BK0412.which is a decimal equivalence of Year/Month/Day.

BK0412

BK0412 ** This station is in an area of known vertical motion. If an

BK0412 ** orthometric height was ever established but is not available

BK0412 ** in the current survey control section, the orthometric height

BK0412 ** is considered suspect. Suspect heights are available in the

BK0412 ** superseded section only if requested.

BK0412

BK0412.The orthometric height was determined by GPS observations and a

BK0412.high-resolution geoid model using precise GPS observation and

BK0412.processing techniques.

BK0412

BK0412.Significant digits in the geoid height do not necessarily reflect accuracy.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0412.GEOID12B height accuracy estimate available [here](#).

BK0412

BK0412.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BK0412

BK0412.The Laplace correction was computed from DEFLEC12B derived deflections.

BK0412

BK0412.The ellipsoidal height was determined by GPS observations

BK0412.and is referenced to NAD 83.

BK0412

BK0412. The following values were computed from the NAD 83(2011) position.

BK0412

BK0412;		North	East	Units	Scale	Factor	Converg.
BK0412;SPC LA S	-	175,314.026	923,721.623	MT	0.99992668	-0 23 44.3	
BK0412;SPC LA S	-	575,176.10	3,030,576.69	sFT	0.99992668	-0 23 44.3	
BK0412;UTM 15	-	3,327,889.782	584,365.853	MT	0.99968781	+0 26 19.6	
BK0412!	-	Elev Factor x Scale Factor = Combined Factor					
BK0412!SPC LA S	-	1.00000356	x	0.99992668	=	0.99993024	
BK0412!UTM 15	-	1.00000356	x	0.99968781	=	0.99969137	

BK0412

BK0412_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP8436527889(NAD 83)

BK0412

SUPERSEDED SURVEY CONTROL

BK0412

BK0412 NAD 83(2007)- 30 04 45.29344(N) 092 07 28.52120(W) AD(2006.81) A
 BK0412 ELLIP H (03/12/08) -22.634 (m) GP(2006.81) 3 1

BK0412

BK0412.Superseded values are not recommended for survey control.

BK0412

BK0412.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BK0412.See file [dsdata.pdf](#) to determine how the superseded data were derived.

BK0412

BK0412_MARKER: DD = SURVEY DISK

BK0412_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

BK0412_STAMPING: 57V4 1967

BK0412_MARK LOGO: LADHGS

BK0412_PROJECTION: FLUSH

BK0412_MAGNETIC: N = NO MAGNETIC MATERIAL

BK0412_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK0412+STABILITY: SURFACE MOTION

BK0412_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BK0412+SATELLITE: SATELLITE OBSERVATIONS - August 26, 2008

BK0412

BK0412	HISTORY	-	Date	Condition	Report By
BK0412	HISTORY	-	1967	MONUMENTED	LADTD
BK0412	HISTORY	-	1968	GOOD	LADTD
BK0412	HISTORY	-	1982	GOOD	NGS
BK0412	HISTORY	-	19910713	GOOD	USPSQD
BK0412	HISTORY	-	19950926	GOOD	USPSQD
BK0412	HISTORY	-	20040201	GOOD	USPSQD
BK0412	HISTORY	-	20050525	GOOD	USPSQD
BK0412	HISTORY	-	20060502	GOOD	NGS
BK0412	HISTORY	-	20060509	GOOD	NGS
BK0412	HISTORY	-	20080826	GOOD	JCLS

BK0412



BK0412 STATION DESCRIPTION
BK0412
BK0412'DESCRIBED BY LA TRANSP AND DEV 1968
BK0412'1.95 MI S FROM MAURICE.
BK0412'ABOUT 1.95 MILES SOUTH ALONG U. S. HIGHWAY 167 FROM THE MAURICE BRANCH
BK0412'OF THE BANK OF ABBEVILLE AND TRUST COMPANY BUILDING IN MAURICE. IN
BK0412'SECTION 23, T11S, R3E. AT INTERSECTION OF U. S. HIGHWAY 167 AND
BK0412'LOUISIANA HIGHWAY 699, 82.6 FEET WEST OF THE CENTERLINE OF U. S.
BK0412'HIGHWAY 167, 65.5 FEET SOUTH OF THE CENTERLINE OF LOUISIANA HIGHWAY
BK0412'699, 105.0 FEET SOUTHWEST OF THE INTERSECTIONS OF THE CENTERLINES OF
BK0412'U. S. HIGHWAY 167 AND LOUISIANA HIGHWAY 699, 1.5 FEET NORTHEAST OF A
BK0412'COMBINATION MESH AND BARBED WIRE FENCE RUNNING NORTHWEST AND
BK0412'SOUTHEAST. SET IN TOP OF A CONCRETE POST PROJECTING 3 INCHES ABOVE
BK0412'THE GROUND. A STEEL WITNESS POST IS SET 1.5 FEET NORTHEAST OF THE
BK0412'MARK.
BK0412
BK0412 STATION RECOVERY (1982)
BK0412
BK0412'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1982
BK0412'RECOVERED IN GOOD CONDITION.
BK0412
BK0412 STATION RECOVERY (1991)
BK0412
BK0412'RECOVERY NOTE BY US POWER SQUADRON 1991 (CRB)
BK0412'RECOVERED IN GOOD CONDITION.
BK0412
BK0412 STATION RECOVERY (1995)
BK0412
BK0412'RECOVERY NOTE BY US POWER SQUADRON 1995
BK0412'RECOVERED IN GOOD CONDITION.
BK0412
BK0412 STATION RECOVERY (2004)
BK0412
BK0412'RECOVERY NOTE BY US POWER SQUADRON 2004 (CRB)
BK0412'
BK0412'
BK0412
BK0412 STATION RECOVERY (2005)
BK0412
BK0412'RECOVERY NOTE BY US POWER SQUADRON 2005 (KMV)
BK0412'RECOVERED IN GOOD CONDITION.
BK0412
BK0412 STATION RECOVERY (2006)
BK0412
BK0412'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (JBW)
BK0412'0.4 METERS NORTHEAST OF AN I BOLT.
BK0412'0.3 METERS NORTH OF A WITNESS POST.
BK0412
BK0412 STATION RECOVERY (2006)
BK0412
BK0412'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
BK0412'RECOVERED AS DESCRIBED.
BK0412
BK0412 STATION RECOVERY (2008)
BK0412



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0412'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2008 (MRY)
BK0412'RECOVERED IN GOOD CONDITION.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

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AV0250 *****
AV0250 HT_MOD - This is a Height Modernization Survey Station.
AV0250 DESIGNATION - 57 V 35
AV0250 PID - AV0250
AV0250 STATE/COUNTY- LA/VERMILION
AV0250 COUNTRY - US
AV0250 USGS QUAD - INTRACOASTAL CITY (1975)
AV0250
AV0250 *CURRENT SURVEY CONTROL
AV0250
AV0250* NAD 83(2011) POSITION- 29 50 31.89577(N) 092 12 38.52237(W) ADJUSTED
AV0250* NAD 83(2011) ELLIP HT- -25.339 (meters) (06/27/12) ADJUSTED
AV0250* NAD 83(2011) EPOCH - 2010.00
AV0250* NAVD 88 ORTHO HEIGHT - 0.92 (meters) 3.0 (feet) GPS OBS
AV0250* NAVD 88 EPOCH - 2009.55
AV0250 **This station is located in a suspected subsidence area (see below).
AV0250
AV0250 NAVD 88 orthometric height was determined with geoid model GEOID12A
AV0250 GEOID HEIGHT - -26.271 (meters) GEOID12A
AV0250 GEOID HEIGHT - -26.271 (meters) GEOID12B
AV0250 NAD 83(2011) X - -213,585.102 (meters) COMP
AV0250 NAD 83(2011) Y - -5,532,839.317 (meters) COMP
AV0250 NAD 83(2011) Z - 3,155,199.673 (meters) COMP
AV0250 LAPLACE CORR - 0.79 (seconds) DEFLEC12B
AV0250
AV0250 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AV0250 Standards:
AV0250 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AV0250 Horiz Ellip SD_N SD_E SD_h (unitless)
AV0250 -----
AV0250 NETWORK 0.43 1.71 0.14 0.20 0.87 -0.02910108
AV0250 -----
AV0250 Click here for local accuracies and other accuracy information.
AV0250
AV0250
AV0250.The horizontal coordinates were established by GPS observations
AV0250.and adjusted by the National Geodetic Survey in June 2012.
AV0250
AV0250.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
AV0250.been affixed to the stable North American tectonic plate. See
AV0250.NA2011 for more information.
AV0250
AV0250.The horizontal coordinates are valid at the epoch date displayed above
AV0250.which is a decimal equivalence of Year/Month/Day.
AV0250
AV0250 ** This station is in an area of known vertical motion. Due to the
AV0250 ** variability of land subsidence, uplift, and crustal motion, NGS has,
AV0250 ** determined the orthometric heights for marks in these suspect
AV0250 ** subsidence areas should be considered valid only at the epoch date
AV0250 ** associated with the orthometric height. These heights must always
AV0250 ** be validated when used as control. All previously superseded
AV0250 ** orthometric heights are now considered suspect and are available
AV0250 ** in the superseded section. NGS does not recommend using suspect
AV0250 ** or superseded heights as control.
AV0250
AV0250

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USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

AV0250.The orthometric height was determined by GPS observations and a AV0250.high-resolution geoid model using precise GPS observation and AV0250.processing techniques.

AV0250

AV0250.Significant digits in the geoid height do not necessarily reflect accuracy.

AV0250.GEOID12B height accuracy estimate available [here](#).

AV0250

AV0250.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AV0250

AV0250.The Laplace correction was computed from DEFLEC12B derived deflections.

AV0250

AV0250.The ellipsoidal height was determined by GPS observations

AV0250.and is referenced to NAD 83.

AV0250

AV0250. The following values were computed from the NAD 83(2011) position.

AV0250

AV0250;		North	East	Units	Scale Factor	Converg.
AV0250;SPC LA S	-	149,099.208	915,219.276	MT	0.99992956	-0 26 19.3
AV0250;SPC LA S	-	489,169.65	3,002,681.91	sFT	0.99992956	-0 26 19.3
AV0250;UTM 15	-	3,301,560.648	576,247.477	MT	0.99967173	+0 23 34.0

AV0250

AV0250! - Elev Factor x Scale Factor = Combined Factor

AV0250!SPC LA S - 1.00000398 x 0.99992956 = 0.99993354

AV0250!UTM 15 - 1.00000398 x 0.99967173 = 0.99967571

AV0250

AV0250_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP7624701560 (NAD 83)

AV0250

AV0250 SUPERSEDED SURVEY CONTROL

AV0250

AV0250	ELLIP H (10/11/11)	-25.369	(m)		GP()	4 1
AV0250	NAD 83(2007)-	29 50 31.89595(N)		092 12 38.52379(W)	AD()	0
AV0250	ELLIP H (02/10/07)	-25.323	(m)		GP()	
AV0250	NAD 83(1992)-	29 50 31.89578(N)		092 12 38.52315(W)	AD(2004.65)	B
AV0250	ELLIP H (06/22/05)	-25.319	(m)		GP(2004.65)	4 1
AV0250	NAVD 88 (03/12/08)	1.08	(m)	UNKNOWN model used	GP(2006.81)	
AV0250	NAVD 88 (06/22/05)	1.13	(m)	GEOID03 model used	GP(2004.65)	
AV0250	NAVD 88 (02/14/94)	1.234	(m)	4.05 (f)	ADJUSTED	1 2
AV0250	NGVD 29 (11/26/84)	1.240	(m)	4.07 (f)	ADJUSTED	1 2

AV0250

AV0250.Superseded values are not recommended for survey control.

AV0250

AV0250.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AV0250.See file [dsdata.pdf](#) to determine how the superseded data were derived.

AV0250

AV0250_MARKER: DD = SURVEY DISK

AV0250_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AV0250_STAMPING: 57 V 35

AV0250_MARK LOGO: LADHGS

AV0250_PROJECTION: PROJECTING 13 CENTIMETERS

AV0250_MAGNETIC: N = NO MAGNETIC MATERIAL

AV0250_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AV0250+STABILITY: SURFACE MOTION

AV0250_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AV0250+SATELLITE: SATELLITE OBSERVATIONS - September 25, 2010

AV0250



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

AV0250	HISTORY	- Date	Condition	Report By
AV0250	HISTORY	- 1968	MONUMENTED	LADTD
AV0250	HISTORY	- 1968	GOOD	LADTD
AV0250	HISTORY	- 1986	GOOD	NGS
AV0250	HISTORY	- 20040207	MARK NOT FOUND	USPSQD
AV0250	HISTORY	- 20040601	GOOD	NGS
AV0250	HISTORY	- 20040605	GOOD	NGS
AV0250	HISTORY	- 20060328	GOOD	NGS
AV0250	HISTORY	- 20100925	GOOD	EMCINC

AV0250

AV0250

STATION DESCRIPTION

AV0250

AV0250'DESCRIBED BY LA TRANSP AND DEV 1968

AV0250'2.25 MI W FROM ESTHER.

AV0250'ABOUT 2.25 MILES WEST ALONG LOUISIANA HIGHWAY 82 FROM THE INTERSECTION
AV0250'OF LOUISIANA HIGHWAYS 82 AND 333 IN ESTHER. IN SECTION 12, T14S, R2E.
AV0250'81.5 FEET NORTH OF THE CENTERLINE OF LOUISIANA HIGHWAY 82. 205.7 FEET
AV0250'NORTH-NORTHEAST OF THE NORTHEAST CORNER OF A WOODEN BARN LOCATED SOUTH
AV0250'OF LOUISIANA HIGHWAY 82, 241.2 FEET NORTHWEST OF THE NORTHWEST CORNER
AV0250'OF THE CARPORT ON THE WOOD FRAME RESIDENCE BUILDING BELONGING TO
AV0250'LAWRENCE CHOATE AND LOCATED ON THE SOUTH SIDE OF LOUISIANA HIGHWAY 82.
AV0250'SET IN TOP OF A CONCRETE POST PROJECTING 5 INCHES ABOVE THE GROUND. A
AV0250'STEEL WITNESS POST IS SET 1.2 FEET NORTH OF THE MARK.

AV0250

AV0250

STATION RECOVERY (1986)

AV0250

AV0250'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986

AV0250'RECOVERED IN GOOD CONDITION.

AV0250

AV0250

STATION RECOVERY (2004)

AV0250

AV0250'RECOVERY NOTE BY US POWER SQUADRON 2004 (CRB)

AV0250'MARK NOT FOUND.

AV0250

AV0250

STATION RECOVERY (2004)

AV0250

AV0250'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004

AV0250'RECOVERED AS DESCRIBED WITH THE FOLLOWING NOTE--THE MARK IS JUST ON
AV0250'THE EAST SIDE OF A BARBED WIRE FENCE SEPERATING A PASTURE FROM A YARD
AV0250'AND SOUTHEAST OF RESIDENCE NUMBER 14230.

AV0250

AV0250

STATION RECOVERY (2004)

AV0250

AV0250'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004

AV0250'MARK IS NOW SE OF A 1 STY FRAME HOUSE, NUMBER 14230, AND JUST ON EAST
AV0250'SIDE OF BARBED WIRE FENCE, IN PASTURE. WITNESS POST IS GONE, MARK IS
AV0250'FLUSH WITH THE GROUND. MARK IS A CGS TRIG STA. DISK.

AV0250

AV0250

STATION RECOVERY (2006)

AV0250

AV0250'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)

AV0250'RECOVERED AS DESCRIBED.

AV0250

AV0250

STATION RECOVERY (2010)

AV0250



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

AV0250'RECOVERY NOTE BY EMC INCORPORATED 2010 (MDG)
AV0250'RECOVERED AS DESCRIBED.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1060 *****

BK1060 DESIGNATION - A 16

BK1060 PID - BK1060

BK1060 STATE/COUNTY- LA/ALLEN

BK1060 COUNTRY - US

BK1060 USGS QUAD - OAKDALE (1993)

BK1060

BK1060 *CURRENT SURVEY CONTROL

BK1060

BK1060* NAD 83(2011) POSITION- 30 48 58.68009(N) 092 39 46.06238(W) ADJUSTED

BK1060* NAD 83(2011) ELLIP HT- 8.608 (meters) (06/27/12) ADJUSTED

BK1060* NAD 83(2011) EPOCH - 2010.00

BK1060* [NAVD 88](#) ORTHO HEIGHT - 35.694 (meters) 117.11 (feet) ADJUSTED

BK1060 GEOID HEIGHT - -27.080 (meters) GEOID12B

BK1060 NAD 83(2011) X - -254,703.107 (meters) COMP

BK1060 NAD 83(2011) Y - -5,476,540.364 (meters) COMP

BK1060 NAD 83(2011) Z - 3,248,423.705 (meters) COMP

BK1060 LAPLACE CORR - -0.34 (seconds) DEFLEC12B

BK1060 DYNAMIC HEIGHT - 35.649 (meters) 116.96 (feet) COMP

BK1060 MODELED GRAVITY - 979,365.1 (mgal) NAVD 88

BK1060

BK1060 VERT ORDER - FIRST CLASS I

BK1060

BK1060 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

BK1060 Standards:

	FGDC (95% conf, cm)		Standard deviation (cm)			CorrNE (unitless)
	Horiz	Ellip	SD_N	SD_E	SD_h	
NETWORK	0.56	2.23	0.12	0.28	1.14	-0.02845570

BK1060 -----

BK1060 Click [here](#) for local accuracies and other accuracy information.

BK1060

BK1060

BK1060.The horizontal coordinates were established by GPS observations

BK1060.and adjusted by the National Geodetic Survey in June 2012.

BK1060

BK1060.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

BK1060.been affixed to the stable North American tectonic plate. See

BK1060.[NA2011](#) for more information.

BK1060

BK1060.The horizontal coordinates are valid at the epoch date displayed above

BK1060.which is a decimal equivalence of Year/Month/Day.

BK1060

BK1060.The orthometric height was determined by differential leveling and

BK1060.adjusted by the NATIONAL GEODETIC SURVEY

BK1060.in February 1994.

BK1060

BK1060.Significant digits in the geoid height do not necessarily reflect accuracy.

BK1060.GEOID12B height accuracy estimate available [here](#).

BK1060

BK1060.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BK1060

BK1060.The Laplace correction was computed from DEFLEC12B derived deflections.

BK1060



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1060.The ellipsoidal height was determined by GPS observations
BK1060.and is referenced to NAD 83.

BK1060

BK1060.The dynamic height is computed by dividing the NAVD 88
BK1060.geopotential number by the normal gravity value computed on the
BK1060.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BK1060.degrees latitude (g = 980.6199 gals.).

BK1060

BK1060.The modeled gravity was interpolated from observed gravity values.

BK1060

BK1060. The following values were computed from the NAD 83(2011) position.

BK1060

BK1060;		North	East	Units	Scale	Factor	Converg.
BK1060;SPC LA S	-	257,495.204	872,787.436	MT	1.00002680	-0 39 53.1	
BK1060;SPC LA S	-	844,798.85	2,863,470.11	sFT	1.00002680	-0 39 53.1	
BK1060;UTM 15	-	3,409,292.274	532,253.257	MT	0.99961283	+0 10 21.9	
BK1060!	-	Elev Factor x Scale Factor = Combined Factor					
BK1060!SPC LA S	-	0.99999865	x	1.00002680	=	1.00002545	
BK1060!UTM 15	-	0.99999865	x	0.99961283	=	0.99961148	

BK1060

BK1060_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWQ3225309292 (NAD 83)

BK1060

SUPERSEDED SURVEY CONTROL

BK1060

BK1060	NAD 83(2007)-	30 48 58.68013(N)	092 39 46.06322(W)	AD(2002.00)	A
BK1060	ELLIP H (03/12/08)	8.620 (m)		GP(2006.81)	3 1
BK1060	NAVD 88 (06/15/91)	35.686 (m)	117.08	(f) SUPERSEDED	1 1
BK1060	NGVD 29 (11/26/84)	35.669 (m)	117.02	(f) ADJUSTED	1 1

BK1060

BK1060.Superseded values are not recommended for survey control.

BK1060

BK1060.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BK1060.See file [dsdata.pdf](#) to determine how the superseded data were derived.

BK1060

BK1060_MARKER: DB = BENCH MARK DISK

BK1060_SETTING: 34 = SET IN THE FOOTINGS OF SMALL/MEDIUM STRUCTURES

BK1060_SP_SET: WATER TANK FOUNDATION

BK1060_STAMPING: A 16 1934

BK1060_MARK LOGO: CGS

BK1060_MAGNETIC: N = NO MAGNETIC MATERIAL

BK1060_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK1060+STABILITY: SURFACE MOTION

BK1060_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BK1060+SATELLITE: SATELLITE OBSERVATIONS - April 08, 2010

BK1060

BK1060	HISTORY	-	Date	Condition	Report By
BK1060	HISTORY	-	1934	MONUMENTED	CGS
BK1060	HISTORY	-	1977	GOOD	LADTD
BK1060	HISTORY	-	1982	GOOD	LADTD
BK1060	HISTORY	-	19880320	GOOD	LADTD
BK1060	HISTORY	-	20060604	GOOD	NGS
BK1060	HISTORY	-	20060728	GOOD	NGS
BK1060	HISTORY	-	20070728	GOOD	MAEC
BK1060	HISTORY	-	20100408	GOOD	GEOLS



BK1060
BK1060 STATION DESCRIPTION
BK1060
BK1060'DESCRIBED BY LA TRANSP AND DEV 1977
BK1060'IN OAKDALE.
BK1060'ABOUT 286 FEET E OF THE E WALL OF THE MISSOURI PACIFIC RAILROAD
BK1060'STATION AT LAKDALE, 242 FT E OF THE E RAIL OF THE MAIN TRACK, 140 FT E
BK1060'OF THE CENTER LINE OF NORTH 9TH ST., 84.0 FT NE OF THE MINI SHOP, SET
BK1060'IN THE TOP OF THE WEST CORNER OF THE NORTHWEST CONCRETE FOUNDATION OF
BK1060'THE CITY WATER TOWER, AND ABOUT FLUSH WITH THE GROUND. SECTION 10,
BK1060'T3S, R3W.
BK1060
BK1060 STATION RECOVERY (1982)
BK1060
BK1060'RECOVERY NOTE BY LA TRANSP AND DEV 1982
BK1060'RECOVERED IN GOOD CONDITION.
BK1060
BK1060 STATION RECOVERY (1988)
BK1060
BK1060'RECOVERY NOTE BY LA TRANSP AND DEV 1988
BK1060'THE WATER TANK HAS BEEN TORN DOWN BUT THE FOOTING IN WHICH THE MARK
BK1060'WAS SET WAS LEFT INTACT.
BK1060'THE STATION IS LOCATED IN OAKDALE. OWNERSHIP--CITY OF OAKDALE.
BK1060'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAY 10, NORTH MAIN
BK1060'STREET AND THE MISSOURI PACIFIC RAILROAD JUST EAST OF U. S. HIGHWAY
BK1060'165 GO NORTH FOR 0.08 KM (0.05 MI) ON NORTH MAIN STREET TO THE MARK ON
BK1060'THE RIGHT SET IN AN OLD LEG FOUNDATION FOR A WATER TOWER THAT IS NOW
BK1060'IN THE BACK DRIVEWAY FOR THE OAKDALE FIRE DEPARTMENT FIREHOUSE.
BK1060'THE MARK IS 73.8 M (242.1 FT) EAST FROM THE EAST RAIL OF THE MAIN
BK1060'LINE, 42.7 M (140.1 FT) EAST FROM THE CENTER OF NORTH MAIN STREET,
BK1060'18.6 M (61.0 FT) NORTHEAST FROM A POWER POLE WITH THREE TRANSFORMERS
BK1060'ATTACHED, 17.4 M (57.1 FT) WEST FROM THE WEST WALL OF THE ENGINE
BK1060'HOUSE, 16.6 M (54.5 FT) EAST-SOUTHEAST FROM THE EAST LEG OF A
BK1060'COMMUNICATIONS TOWER, 14.9 M (48.9 FT) NORTH-NORTHEAST FROM THE
BK1060'NORTHEAST CORNER OF DUCKS TV AND FURNITURE SHOP AND 8.84 M (29.0 FT)
BK1060'NORTHWEST FROM A FIRE HYDRANT.
BK1060
BK1060 STATION RECOVERY (2006)
BK1060
BK1060'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
BK1060'RECOVERED IN GOOD CONDITION AS DESCRIBED.
BK1060
BK1060 STATION RECOVERY (2006)
BK1060
BK1060'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (DW)
BK1060'RECOVERED IN GOOD CONDITION.
BK1060
BK1060 STATION RECOVERY (2007)
BK1060
BK1060'RECOVERY NOTE BY MA ENGINEERING CONSULT INC 2007 (SH)
BK1060'RECOVERED IN GOOD CONDITION.
BK1060
BK1060 STATION RECOVERY (2010)
BK1060
BK1060'RECOVERY NOTE BY GEOPHYSICAL LAND SERVICES 2010 (DE)



USGS LA Bayou Nezpique Lidar Survey
FGS Project Number U18001
Prime Contractor: Optimal GEO, Inc.
Sub-Contractor: Florabama

BK1060'RECOVERED IN GOOD CONDITION.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3365 *****

BK3365 DESIGNATION - B 268 RESET
BK3365 PID - BK3365
BK3365 STATE/COUNTY- LA/ALLEN
BK3365 COUNTRY - US
BK3365 USGS QUAD - OAKDALE (1993)

BK3365
BK3365 *CURRENT SURVEY CONTROL
BK3365

BK3365* NAD 83(1986) POSITION- 30 45 05. (N) 092 41 24. (W) SCALED
BK3365* NAVD 88 ORTHO HEIGHT - 31.08 (meters) 102.0 (feet) RESET
BK3365
BK3365 GEOID HEIGHT - -27.138 (meters) GEOID12B
BK3365 VERT ORDER - THIRD

BK3365.The horizontal coordinates were scaled from a topographic map and have
BK3365.an estimated accuracy of +/- 6 seconds.

BK3365.
BK3365.The orthometric height was computed from unverified reset data.

BK3365.No vertical observational check was made to the station.

BK3365.Significant digits in the geoid height do not necessarily reflect accuracy.
BK3365.GEOID12B height accuracy estimate available here.

BK3365
BK3365; North East Units Estimated Accuracy
BK3365;SPC LA S - 250,330. 870,100. MT (+/- 180 meters Scaled)

BK3365_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWQ296020 (NAD 83)

BK3365 SUPERSEDED SURVEY CONTROL

BK3365 NGVD 29 (09/18/05) 31.05 (m) 101.9 (f) RESET 3

BK3365.Superseded values are not recommended for survey control.

BK3365.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BK3365.See file dsdata.pdf to determine how the superseded data were derived.

BK3365_MARKER: DD = SURVEY DISK
BK3365_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
BK3365_STAMPING: B 268 RESET 1985
BK3365_MARK LOGO: LADTD
BK3365_PROJECTION: PROJECTING 7 CENTIMETERS
BK3365_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
BK3365_ROD/PIPE-DEPTH: 5.18 meters
BK3365_SLEEVE-DEPTH : 0.46 meters

BK3365 HISTORY - Date Condition Report By
BK3365 HISTORY - 1985 MONUMENTED LADTD

BK3365 STATION DESCRIPTION

BK3365'DESCRIBED BY LA TRANSP AND DEV 1985
BK3365'8.7 KM (5.40 MI) SW FROM OAKDALE.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3365'7.9 KM (4.90 MI) SOUTHWEST ALONG THE MISSOURI PACIFIC RAILROAD FROM
BK3365'THE STATION IN OAKDALE, THENCE 0.8 KM (0.50 MI) EAST ALONG A GRAVELED
BK3365'ROAD, AT THE ALLEN PARISH AIRPORT, 40.2 M (131.9 FT) NORTH OF THE
BK3365'CENTER OF A PROPOSED EAST-WEST TAXIWAY, 24.4 M (80.1 FT) NORTHWEST OF
BK3365'THE NORTHWEST CORNER OF AIRPORT OFFICE, AND 0.7 M (2.3 FT) SOUTH OF A
BK3365'FENCE. NOTE--ACCESS TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
BK3365'THE MARK IS 0.15 METERS W FROM A WITNESS POST
BK3365'THE MARK IS ABOVE LEVEL WITH GRAVELED ROAD.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1315 *****

BK1315 DESIGNATION - BAYNE 2
BK1315 PID - BK1315
BK1315 STATE/COUNTY- LA/BEAUREGARD
BK1315 COUNTRY - US
BK1315 USGS QUAD - LONGVILLE (1994)

BK1315
BK1315 *CURRENT SURVEY CONTROL
BK1315

BK1315* NAD 83(1992) POSITION- 30 30 48.95360(N) 093 10 15.01047(W) ADJUSTED
BK1315* NAD 83(1992) ELLIP HT- -1.730 (meters) (01/02/04) ADJUSTED
BK1315* NAVD 88 ORTHO HEIGHT - ** (meters) ** (feet) NOT PUB

BK1315 **This station is located in a suspected subsidence area (see below).

BK1315
BK1315 GEOID HEIGHT - -27.149 (meters) GEOID12B
BK1315 NAD 83(1992) X - -304,199.111 (meters) COMP
BK1315 NAD 83(1992) Y - -5,491,147.036 (meters) COMP
BK1315 NAD 83(1992) Z - 3,219,552.493 (meters) COMP
BK1315 LAPLACE CORR - -0.16 (seconds) DEFLEC12B
BK1315 DYNAMIC HEIGHT - 25.360 (meters) 83.20 (feet) COMP
BK1315 MODELED GRAVITY - 979,346.6 (mgal) NAVD 88

BK1315
BK1315 HORZ ORDER - FIRST
BK1315 VERT ORDER - SECOND CLASS I
BK1315 ELLP ORDER - FOURTH CLASS II
BK1315

BK1315.The horizontal coordinates were established by classical geodetic methods
BK1315.and adjusted by the National Geodetic Survey in January 1993.

BK1315.
BK1315 ** This station is in an area of known vertical motion. If an
BK1315 ** orthometric height was ever established but is not available
BK1315 ** in the current survey control section, the orthometric height
BK1315 ** is considered suspect. Suspect heights are available in the
BK1315 ** superseded section only if requested.

BK1315
BK1315.The orthometric height was determined by differential leveling and
BK1315.adjusted by the NATIONAL GEODETIC SURVEY
BK1315.in February 1994.

BK1315
BK1315.Significant digits in the geoid height do not necessarily reflect accuracy.
BK1315.GEOID12B height accuracy estimate available here.

BK1315
BK1315.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BK1315
BK1315.The Laplace correction was computed from DEFLEC12B derived deflections.

BK1315
BK1315.The ellipsoidal height was determined by GPS observations
BK1315.and is referenced to NAD 83.

BK1315
BK1315.The dynamic height is computed by dividing the NAVD 88
BK1315.geopotential number by the normal gravity value computed on the
BK1315.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BK1315.degrees latitude (g = 980.6199 gals.).

BK1315
BK1315.The modeled gravity was interpolated from observed gravity values.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1315

BK1315. The following values were computed from the NAD 83(1992) position.

BK1315

BK1315;		North	East	Units	Scale Factor	Converg.
BK1315;SPC LA S	-	224,612.843	823,639.850	MT	0.99996566	-0 55 07.6
BK1315;SPC LA S	-	736,917.30	2,702,225.07	sFT	0.99996566	-0 55 07.6
BK1315;UTM 15	-	3,375,710.834	483,608.733	MT	0.99960331	-0 05 12.3

BK1315

BK1315! - Elev Factor x Scale Factor = Combined Factor

BK1315!SPC LA S - 1.00000027 x 0.99996566 = 0.99996593

BK1315!UTM 15 - 1.00000027 x 0.99960331 = 0.99960358

BK1315

BK1315:		Primary Azimuth Mark	Grid Az
BK1315:SPC LA S	-	BAYNE AZ MK	058 08 09.7
BK1315:UTM 15	-	BAYNE AZ MK	057 18 14.4

BK1315

BK1315_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RVP8360875710 (NAD 83)

BK1315

BK1315	PID	Reference Object	Distance	Geod. Az
BK1315				ddmmss.s
BK1315	BK1317	BAYNE 2 RM 4	28.552 METERS	00159
BK1315	BK2602	BAYNE AZ MK		0571302.1
BK1315	BK1316	BAYNE 2 RM 3	28.482 METERS 14103	

BK1315

BK1315

SUPERSEDED SURVEY CONTROL

BK1315

BK1315	ELLIP H (01/21/93)	-1.698 (m)	GP () 4 2
BK1315	NAD 83(1986)- 30 30 48.97304 (N)	093 10 15.00273 (W)	AD () 1
BK1315	NAD 27 - 30 30 48.25474 (N)	093 10 14.43644 (W)	AD () 3
BK1315	NAD 27 - 30 30 48.25474 (N)	093 10 14.43644 (W)	AD () 1

BK1315

BK1315.Superseded values are not recommended for survey control.

BK1315

BK1315.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BK1315.See file [dsdata.pdf](#) to determine how the superseded data were derived.

BK1315

BK1315_MARKER: DS = TRIANGULATION STATION DISK

BK1315_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

BK1315_STAMPING: BAYNE 2 1974

BK1315_MARK LOGO: NGS

BK1315_PROJECTION: FLUSH

BK1315_MAGNETIC: N = NO MAGNETIC MATERIAL

BK1315_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK1315+STABILITY: SURFACE MOTION

BK1315_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BK1315+SATELLITE: SATELLITE OBSERVATIONS - 1987

BK1315

BK1315	HISTORY	- Date	Condition	Report By
BK1315	HISTORY	- 1974	MONUMENTED	NGS
BK1315	HISTORY	- 1974	GOOD	NGS
BK1315	HISTORY	- 1984	GOOD	LADTD
BK1315	HISTORY	- 1987	GOOD	NGS

BK1315



BK1315 STATION DESCRIPTION
BK1315
BK1315'DESCRIBED BY NATIONAL GEODETIC SURVEY 1974 (HRR)
BK1315'THE STATION IS ABOUT 7-1/2 MILES SOUTHEAST OF LONGVILLE, 7-1/2 MILES
BK1315'WEST OF REEVES, 3-1/2 MILES EAST OF RAGLEY, 0.1 MILE SOUTH OF U. S.
BK1315'HIGHWAY 190 AND PROPERTY OWNED BY MR. THOMAS BAYNE WHO LIVES AT THE
BK1315'STATION.
BK1315'
BK1315'TO REACH THE STATION FROM THE JUNCTION OF U. S. HIGHWAY 190 AND
BK1315'U. S. HIGHWAY 171 IN RAGLEY, GO EAST ON HIGHWAY 190 FOR 3.5 MILES
BK1315'TO A GRAVELED ROAD ON THE RIGHT. (TO REACH THE AZIMUTH MARK FROM
BK1315'HERE, CONTINUE EAST ON HIGHWAY 190 FOR 0.2 MILE TO THE MARK ON THE
BK1315'RIGHT AS DESCRIBED.) TURN RIGHT AND GO SOUTH ON THE GRAVELED
BK1315'ROAD CROSSING THE RAILROAD TRACKS FOR 0.05 MILE TO A FORK. KEEP
BK1315'RIGHT, PASS THROUGH A GATE AND GO SOUTH FOR ABOUT 50 YARDS TO THE
BK1315'STATION ON THE LEFT AS DESCRIBED.
BK1315'
BK1315'THE STATION MARKS ARE STANDARD DISKS STAMPED BAYNE 2 1974. THE
BK1315'SURFACE DISK IS SET IN A ROUND CONCRETE POST FLUSH WITH THE GROUND.
BK1315'THE UNDERGROUND DISK IS SET IN AN IRREGULAR MASS OF CONCRETE ABOUT
BK1315'48 INCHES BELOW THE GROUND. THEY ARE 93 FEET NORTHWEST OF A METAL
BK1315'WITNESS POST, 48 FEET EAST OF CENTER OF A GRAVELED ROAD, 48 FEET
BK1315'WEST OF A WIRE FENCE AND 44 FEET NORTH OF A 16 INCH PINE TREE.
BK1315'
BK1315'REFERENCE MARK 3, STAMPED BAYNE 2 NO 3 1974, IS A STANDARD DISK
BK1315'SET IN A ROUND CONCRETE POST FLUSH WITH THE GROUND. IT IS 96 FEET
BK1315'EAST OF CENTER OF THE GRAVELED ROAD, 58 FEET SOUTH OF THE TREE, 1
BK1315'FOOT NORTH OF A NORTH GATE POST AND 1 FOOT SOUTH OF A METAL
BK1315'WITNESS POST.
BK1315'
BK1315'REFERENCE MARK 4, STAMPED BAYNE 2 NO 4 1974, IS A STANDARD DISK SET
BK1315'IN A ROUND CONCRETE POST PROJECTING 2 INCHES ABOVE THE GROUND.
BK1315'IT IS 135 FEET NORTHEAST OF THE TREE, 63 FEET EAST OF CENTER OF THE
BK1315'ROAD, 1.5 FEET SOUTH OF A METAL WITNESS POST AND 1 FOOT WEST OF
BK1315'THE FENCE.
BK1315'
BK1315'AZIMUTH MARK, STAMPED BAYNE 1963, IS A STANDARD AZIMUTH MARK DISK
BK1315'SET IN A SQUARE CONCRETE POST PROJECTING 2 INCHES ABOVE THE GROUND.
BK1315'IT IS 83 FEET SOUTH OF CENTER OF U. S. HIGHWAY 190, 48 FEET NORTH
BK1315'OF THE NORTH RAIL OF RAILROAD TRACKS AND 2.5 FEET WEST OF A WOODEN
BK1315'WITNESS POST WITH A SIGN ATTACHED.
BK1315'
BK1315'BAYNE, STAMPED BAYNE 1963, IS A STANDARD STATION MARK DISK SET IN A
BK1315'SQUARE CONCRETE POST FLUSH WITH THE GROUND. IT IS ABOUT 15 FEET
BK1315'NORTH OF THE EXTENDED LINE OF THE NORTH WALL OF THE MOST SOUTHERLY
BK1315'BUILDING AT MR. BAYNES FARM AND 69 PACES EAST OF THE EAST END
BK1315'OF AN UNPLOWED GRASSY DEPRESSION IN A FIELD. THE UNDERGROUND DISK
BK1315'IS SET IN AN IRREGULAR MASS OF CONCRETE, DEPTH UNKNOWN.
BK1315'
BK1315'BAYNE 2 WAS ESTABLISHED BEFORE BAYNE 1963 WAS RECOVERED.
BK1315'
BK1315'NEAREST TOWN--RAGLEY.
BK1315'
BK1315'HEIGHT OF LIGHT ABOVE STATION MARK 40.5 METERS.
BK1315'



BK1315 STATION RECOVERY (1974)

BK1315

BK1315'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1974

BK1315'7.5 MI SE FROM LONGVILLE.

BK1315'LOCATED ABOUT 7 1/2 MILES SOUTHEAST OF LONGVILLE, 7 1/2 MILES WEST OF
BK1315'REEVES, 3 1/2 MILES EAST OF RAGLEY, 0.1 MILE SOUTH OF U.S. HIGHWAY 190
BK1315'AND PROPERTY OWNED BY MR. THOMAS BAYNE WHO LIVES AT THE STATION. IT IS
BK1315'93 FEET NORTHWEST OF A METAL WITNESS POST, 48 FEET EAST OF CENTER OF A
BK1315'GRAVELED ROAD, 48 FEET WEST OF A WIRE FENCE AND 44 FEET NORTH OF A 16
BK1315'INCH PINE TREE. THE DISK IS SET IN A ROUND CONCRETE POST FLUSH WITH
BK1315'THE GROUND. NOTE-- TO REACH FROM THE JUNCTION OF U.S. HIGHWAY 190 AND
BK1315'U.S. HIGHWAY 171 IN RAGLEY, GO EAST ON HIGHWAY 190 FOR 3.5 MILES TO A
BK1315'GRAVELED ROAD ON THE RIGHT. TURN RIGHT AND GO SOUTH ON THE GRAVELED
BK1315'ROAD CROSSING THE RAILROAD TRACKS FOR 0.05 MILE TO A FORK. KEEP RIGHT,
BK1315'PASS THROUGH A GATE AND GO SOUTH FOR ABOUT 50 YARDS TO THE STATION ON
BK1315'THE LEFT AS DESCRIBED.

BK1315

BK1315

BK1315

STATION RECOVERY (1984)

BK1315'RECOVERY NOTE BY LA TRANSP AND DEV 1984

BK1315'RECOVERED IN GOOD CONDITION. A NEW DESCRIPTION AS FOLLOWS. ABOUT
BK1315'6.0 KM (3.7 MILES) EAST ALONG U.S. HIGHWAY 190 FROM THE JUNCTION OF
BK1315'U.S. HIGHWAY 171 AND U.S. HIGHWAY 190 TO A GRAVEL ROAD CROSSING THE
BK1315'RAILROAD TRACKS, TURN RIGHT AND CONTINUE ABOUT 150 METERS (500 FEET)
BK1315'TO THE MARK ON THE LEFT IN SECTION 27, T 6 S, R 8 W, 14.6 METERS (48
BK1315'FEET) EAST OF THE CENTER OF THE GRAVEL ROAD, 14.6 METERS (48 FEET)
BK1315'WEST OF A WIRE FENCE, 13.4 METERS (44 FEET) NORTH OF A 16 INCH PINE
BK1315'TREE.

BK1315'THE MARK IS 28.3 METERS NW FROM A WITNESS POST.

BK1315'THE MARK IS ABOVE LEVEL WITH THE GRAVEL ROAD.

BK1315

BK1315

BK1315

STATION RECOVERY (1987)

BK1315'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1987 (EDW)

BK1315'THE DESIGNATED MARK WAS RECOVERED WITH CHANGES NOTED BELOW--

BK1315'THE STATION WAS RECOVERED IN GOOD CONDITION AND FOR GPS

BK1315'OBSERVATIONS.

BK1315'

BK1315'THE STATION IS LOCATED ABOUT 12 KM (7.5 MI) SOUTHEAST OF LONGVILLE,

BK1315'12 KM (7.5 MI) WEST OF REEVES, 5.6 KM (3.5 MI) EAST OF RAGLEY AND

BK1315'0.2 KM (0.1 MI) SOUTH OF U.S. HIGHWAY 190.

BK1315'OWNERSHIP--MR. W.F. HENRY JR., BOX 178, RAGLEY LA. PHONE

BK1315'318-725-3670.

BK1315'

BK1315'TO REACH THE STATION FROM JUNCTION OF U.S. HIGHWAYS 171 AND 190 AND

BK1315'STATE HIGHWAY 12 AT THE STATE HIGHWAY OVERPASS IN RAGLEY, GO EAST

BK1315'HIGHWAY 190 FOR 5.9 KM (3.7 MI) TO A GRAVELED ROAD ON RIGHT. TURN

BK1315'RIGHT, SOUTH CROSSING THE RAILROAD TRACKS FOR 0.1 KM (0.05 MI) TO A

BK1315'FORK AND FENCE WITH A CATTLE GUARD. KEEP LEFT ON THE GRAVELED

BK1315'DRIVE LEADING TO A HOUSE FOR 0.1 KM (0.05 MI) TO THE STATION ON

BK1315'RIGHT IN THE GRASS AREA.

BK1315'

BK1315'THE STATION IS A STANDARD NGS DISK

BK1315'STAMPED---BAYNE 2 1974---,

BK1315'SET INTO THE TOP OF A ROUND CONCRETE MONUMENT



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK1315'30 CM IN DIAMETER FLUSH WITH GROUND. LOCATED
BK1315'24.54 METERS (80.5 FT) WEST FROM THE CENTER OF A GRAVELED ROAD,
BK1315'29.05 METERS (95.3 FT) SOUTH FROM A WITNESS POST WITH SIGN,
BK1315'13.7 METERS (45.0 FT) NORTH FROM A 50 CM IN DIAMETER PINE TREE,
BK1315'9.3 METERS (30.5 FT) EAST FROM A WIRE FENCE LINE AND
BK1315'0.79 METER (2.6 FT) SOUTH FROM A CARSONITE WITNESS POST.
BK1315'THE UNDERGROUND MARK IS A STANDARD NGS DISK
BK1315'STAMPED---BAYNE 2 1974---,
BK1315'SET INTO AN IRREGULAR MASS OF CONCRETE 1.1 METERS BELOW THE SURFACE.
BK1315'
BK1315'DESCRIBED BY J.N. LEONHARDT, TYPED BY DEW.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3249 *****

BK3249 HT_MOD - This is a Height Modernization Survey Station.

BK3249 DESIGNATION - BUTCH

BK3249 PID - BK3249

BK3249 STATE/COUNTY- LA/ACADIA

BK3249 COUNTRY - US

BK3249 USGS QUAD - EUNICE SOUTH (1987)

BK3249

BK3249 *CURRENT SURVEY CONTROL

BK3249

BK3249* NAD 83(2011) POSITION- 30 28 15.26777(N) 092 25 33.56814(W) ADJUSTED

BK3249* NAD 83(2011) ELLIP HT- -16.642 (meters) (06/27/12) ADJUSTED

BK3249* NAD 83(2011) EPOCH - 2010.00

BK3249* [NAVD 88](#) ORTHO HEIGHT - *(meters) *(feet) NOT PUB

BK3249 **This station is located in a suspected subsidence area (see below).

BK3249

BK3249 NAVD 88 orthometric height was determined with geoid model GEOID03

BK3249 GEOID HEIGHT - -27.392 (meters) GEOID03

BK3249 GEOID HEIGHT - -27.410 (meters) GEOID12B

BK3249 NAD 83(2011) X - -232,891.617 (meters) COMP

BK3249 NAD 83(2011) Y - -5,497,024.000 (meters) COMP

BK3249 NAD 83(2011) Z - 3,215,466.773 (meters) COMP

BK3249 LAPLACE CORR - -0.03 (seconds) DEFLEC12B

BK3249

BK3249 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

BK3249 Standards:

	FGDC (95% conf, cm)		Standard deviation (cm)			CorrNE (unitless)
	Horiz	Ellip	SD_N	SD_E	SD_h	
NETWORK	0.58	3.27	0.12	0.29	1.67	0.02380393

BK3249 -----

BK3249 Click [here](#) for local accuracies and other accuracy information.

BK3249

BK3249

BK3249.This mark is at Eunice Airport (4R7)

BK3249

BK3249.The horizontal coordinates were established by GPS observations

BK3249.and adjusted by the National Geodetic Survey in June 2012.

BK3249

BK3249.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

BK3249.been affixed to the stable North American tectonic plate. See

BK3249.[NA2011](#) for more information.

BK3249

BK3249.The horizontal coordinates are valid at the epoch date displayed above

BK3249.which is a decimal equivalence of Year/Month/Day.

BK3249

BK3249 ** This station is in an area of known vertical motion. If an

BK3249 ** orthometric height was ever established but is not available

BK3249 ** in the current survey control section, the orthometric height

BK3249 ** is considered suspect. Suspect heights are available in the

BK3249 ** superseded section only if requested.

BK3249

BK3249.The orthometric height was determined by GPS observations and a

BK3249.high-resolution geoid model using precise GPS observation and

BK3249.processing techniques.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3249
BK3249.Significant digits in the geoid height do not necessarily reflect accuracy.
BK3249.GEOID12B height accuracy estimate available here.

BK3249
BK3249.Photographs are available for this station.

BK3249
BK3249.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BK3249
BK3249.The Laplace correction was computed from DEFLEC12B derived deflections.

BK3249
BK3249.The ellipsoidal height was determined by GPS observations
BK3249.and is referenced to NAD 83.

BK3249
BK3249. The following values were computed from the NAD 83(2011) position.

Table with columns: North, East, Units, Scale Factor, Convergency. Rows include SPC LA S and UTM 15 coordinates.

Table with columns: Elev Factor, Scale Factor, Combined Factor. Rows include SPC LA S and UTM 15.

Table with columns: Primary Azimuth Mark, Grid Az. Rows include SPC LA S and UTM 15.

BK3249
BK3249_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP5509971107(NAD 83)

Table with columns: PID, Reference Object, Distance, Geod. Az. Row includes BK3250 BUTCH AZ MK.

Table with columns: Datum, Easting, Northing, Easting, Northing, Azimuth, Azimuth. Includes SUPERSEDED SURVEY CONTROL header.

BK3249
BK3249.Superseded values are not recommended for survey control.

BK3249
BK3249.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BK3249.See file dsdata.pdf to determine how the superseded data were derived.

BK3249
BK3249_MARKER: DH = HORIZONTAL CONTROL DISK
BK3249_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
BK3249_STAMPING: BUTCH 1986
BK3249_MARK LOGO: NGS



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3249_PROJECTION: FLUSH

BK3249_MAGNETIC: O = OTHER; SEE DESCRIPTION

BK3249_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK3249+STABILITY: SURFACE MOTION

BK3249_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BK3249+SATELLITE: SATELLITE OBSERVATIONS - September 24, 2008

BK3249

BK3249	HISTORY	- Date	Condition	Report By
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BK3249	HISTORY	- 1986	MONUMENTED	LADTD
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BK3249	HISTORY	- 19861231	GOOD	LADTD
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BK3249	HISTORY	- 19870220	GOOD	
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BK3249	HISTORY	- 20060526	GOOD	NGS
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BK3249	HISTORY	- 20080924	GOOD	JCLS
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BK3249

BK3249 STATION DESCRIPTION

BK3249

BK3249'DESCRIBED BY LA TRANSP AND DEV 1986 (SLC)

BK3249'THE STATION IS LOCATED ABOUT 3.2 KM (2 MI) SOUTH OF EUNICE, NEAR THE

BK3249'AIRPORT TERMINAL BUILDING AT THE EUNICE AIRPORT AND ON THE LEFT

BK3249'SIDE OF THE ENTRANCE TO THE AIRPLANE PARKING LOT WHICH IS ON THE

BK3249'NORTH OF THE SIDE OF THE TERMINAL BUILDING.

BK3249'OWNERSHIP--CITY OF EUNICE, MR. DREW MILLER, AIRPORT MANAGER,

BK3249'EUNICE, LA. 70535, PHONE 318-457-9697.

BK3249'

BK3249'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 190 AND

BK3249'STATE HIGHWAY 13 IN EUNICE, GO SOUTH ON HIGHWAY 13 FOR 0.9 KM (0.55

BK3249'MI) TO THE JUNCTION OF STATE HIGHWAY 91, W. MAPLE ST., GO WEST ON

BK3249'HIGHWAY 91 FOR 1.7 KM (1.05 MI) TO THE JUNCTION OF STATE HIGHWAY

BK3249'755. TURN LEFT, SOUTH, ON HIGHWAY 755 FOR 2.1 KM (1.3 MI) TO A

BK3249'COUNTY ROAD 3123. TURN LEFT, SOUTHEAST, ON COUNTY ROAD 3123 FOR

BK3249'0.6 KM (0.35 MI) TO THE AIRPORT ENTRANCE ON THE LEFT. TURN LEFT

BK3249'AND GO EAST TO THE TERMINAL BUILDING AND STATION AS DESCRIBED.

BK3249'

BK3249'THE STATION IS A STANDARD NGS DISK

BK3249'STAMPED---BUTCH 1986---

BK3249'SET INTO THE TOP OF A ROUND CONCRETE MONUMENT

BK3249'30 CM IN DIAMETER FLUSH WITH GROUND. LOCATED

BK3249'55.2 METERS (181 FT) EAST FROM A CRESOTE LAMP POLE IN THE AIRPLANE

BK3249'PARKING LOT,

BK3249'50 METERS (164 FT) NORTH FROM THE NORTH CORNER OF THE TERMINAL

BK3249'BUILDING,

BK3249'17.4 METERS (57 FT) WEST FROM THE CENTER OF THE TAXIWAY,

BK3249'16.8 METERS (55 FT) NORTH FROM A CATCH BASIN AND

BK3249'11.6 METERS (38 FT) SOUTH-SOUTHEAST FROM THE CENTER OF THE ENTRANCE

BK3249'TO THE AIRPLANE PARKING LOT.

BK3249'THE UNDERGROUND MARK IS A STANDARD NGS DISK

BK3249'STAMPED---BUTCH 1986---

BK3249'SET INTO AN IRREGULAR MASS OF CONCRETE 1.1 METERS BELOW THE SURFACE.

BK3249'

BK3249'DESCRIBED BY R. COPP, TYPED BY RDB.

BK3249

BK3249 STATION RECOVERY (1986)

BK3249

BK3249'RECOVERY NOTE BY LA TRANSP AND DEV 1986 (SLC)

BK3249'ABOUT 3.2 KM (2.00 MI) SOUTH OF EUNICE SET NEAR THE AIRPORT TERMINAL



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3249'BUILDING AT THE EUNICE AIRPORT 55.2 METERS (181.1 FT) EAST OF A
BK3249'CRESOTE LAMP POLE IN THE AIRPLANE PARKING LOT, 50 METERS (164.0 FT)
BK3249'NORTH OF THE NORTH CORNER OF THE TERNINAL BUILDING, 17.4 METERS (57.1
BK3249'FT) WEST OF THE CENTER OF THE TAXIWAY, 16.8 METERS (55.1 FT) NORTH OF
BK3249'A CATCH BASIN AND 11.6 METERS (38.1 FT) SOUTH-SOUTHEAST OF THE CENTER
BK3249'OF THE ENTRANCE TO THE AIRPLANE PARKING LOT.

BK3249

BK3249

STATION RECOVERY (1987)

BK3249

BK3249'RECOVERED 1987

BK3249'RECOVERED IN GOOD CONDITION.

BK3249

BK3249

STATION RECOVERY (2006)

BK3249

BK3249'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)

BK3249'RECOVERED IN GOOD CONDITION. TO REACH FROM UNDERPASS FOR I-10

BK3249'WESTBOUND LANES AND LA-13 IN CROWLEY, GO 15.85 MI (25.51 KM) NORTH

BK3249'ALONG LA-13 TO THE TEE JUNCTION FOR PR-3123, THENCE LEFT (WEST AND NW)

BK3249'1.6 MI (2.57 KM) TO EUNICE AIRPORT ROAD, THENCE RIGHT (EAST) 0.35 MI

BK3249'(0.56 KM) TO AIRPORT OFFICE BUILDING AND STATION AS DESCRIBED.

BK3249'

BK3249'CONTACT MR DREW MILLER IN ADVANCE AT (337) 580-0383 (CELL).

BK3249

BK3249

STATION RECOVERY (2008)

BK3249

BK3249'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2008

BK3249'RECOVERED IN GOOD CONDITION.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

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AV1001 *****
AV1001 DESIGNATION - GAYLE
AV1001 PID - AV1001
AV1001 STATE/COUNTY- LA/VERMILION
AV1001 COUNTRY - US
AV1001 USGS QUAD - LATANIER BAYOU (1979)
AV1001
AV1001
AV1001 *CURRENT SURVEY CONTROL
AV1001
AV1001* NAD 83(1992) POSITION- 29 55 00.84848(N) 092 30 47.57401(W) ADJUSTED
AV1001* NAD 83(1992) ELLIP HT- -25.822 (meters) (01/21/93) ADJUSTED
AV1001* NAVD 88 ORTHO HEIGHT - ** (meters) ** (feet) NOT PUB
AV1001 **This station is located in a suspected subsidence area (see below).
AV1001
AV1001 GEOID HEIGHT - -26.645 (meters) GEOID12B
AV1001 NAD 83(1992) X - -242,613.741 (meters) COMP
AV1001 NAD 83(1992) Y - -5,527,512.388 (meters) COMP
AV1001 NAD 83(1992) Z - 3,162,380.110 (meters) COMP
AV1001 LAPLACE CORR - 0.27 (seconds) DEFLEC12B
AV1001 HORZ ORDER - SECOND
AV1001 ELLP ORDER - FOURTH CLASS II
AV1001
AV1001.The horizontal coordinates were established by GPS observations
AV1001.and adjusted by the National Geodetic Survey in January 1993.
AV1001
AV1001 ** This station is in an area of known vertical motion. If an
AV1001 ** orthometric height was ever established but is not available
AV1001 ** in the current survey control section, the orthometric height
AV1001 ** is considered suspect. Suspect heights are available in the
AV1001 ** superseded section only if requested.
AV1001
AV1001.Significant digits in the geoid height do not necessarily reflect accuracy.
AV1001.GEOID12B height accuracy estimate available here.
AV1001
AV1001.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AV1001
AV1001.The Laplace correction was computed from DEFLEC12B derived deflections.
AV1001
AV1001.The ellipsoidal height was determined by GPS observations
AV1001.and is referenced to NAD 83.
AV1001
AV1001. The following values were computed from the NAD 83(1992) position.
AV1001
AV1001;
AV1001;SPC LA S - North East Units Scale Factor Converg.
AV1001;SPC LA S - 157,642.113 886,073.232 MT 0.99992681 -0 35 23.8
AV1001;SPC LA S - 517,197.50 2,907,058.60 sFT 0.99992681 -0 35 23.8
AV1001;UTM 15 - 3,309,677.073 546,988.638 MT 0.99962724 +0 14 34.0
AV1001
AV1001! - Elev Factor x Scale Factor = Combined Factor
AV1001!SPC LA S - 1.00000406 x 0.99992681 = 0.99993087
AV1001!UTM 15 - 1.00000406 x 0.99962724 = 0.99963129
AV1001
AV1001_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP4698809677 (NAD 83)
AV1001
AV1001 SUPERSEDED SURVEY CONTROL

```



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

AV1001
AV1001 NAD 83(1986)- 29 55 00.87093(N) 092 30 47.56039(W) AD() 2
AV1001

AV1001.Superseded values are not recommended for survey control.

AV1001
AV1001.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AV1001.See file dsdata.pdf to determine how the superseded data were derived.

AV1001
AV1001_MARKER: A = ALUMINUM MARKER
AV1001_SETTING: 4 = OBJECT SURROUNDED BY MASS OF CONCRETE
AV1001_SP_SET: SURROUNDED BY MASS OF CONCRETE
AV1001_STAMPING: GAYLE 1991
AV1001_MARK LOGO: NOS
AV1001_MAGNETIC: B = BAR MAGNET IMBEDDED IN MONUMENT
AV1001_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
AV1001_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AV1001+SATELLITE: SATELLITE OBSERVATIONS - 1991

Table with 4 columns: HISTORY, Date, Condition, Report By. Row 1: HISTORY, - 1991, MONUMENTED, NOS

STATION DESCRIPTION

AV1001'DESCRIBED BY NATIONAL OCEAN SERVICE 1991
AV1001'THE STATION IS LOCATED APPROX 24.14 KM (15.00 MI) SOUTHWEST OF
AV1001'KAPLAN, 11.75 KM (7.30 MI) SOUTH OF GUEYDAN AT THE SOUTH END OF
AV1001'HIGHWAY 91 ON PROPERTY OWNED BY AMOCO OIL COMPANY AND LEASED BY MR. W
AV1001'.J.GAYLE OF GUEYDAN, PHONE NUMBER (318)536-9401.
AV1001'TO REACH THE STATION FROM THE INTERSECTION OF HIGHWAY 14 AND HIGHWAY
AV1001'91 IN GUEYDAN, GO SOUTH ON HIGHWAY 91 FOR 11.75 KM (7.30 MI) TO
AV1001'FLORENCE LANDING. CONTINUE SOUTH FOR 0.24 KM (0.15 MI) , AROUND A
AV1001'SMALL BUILDING ON THE RIGHT, TO A STEEL GATE. PARK AND WALK THROUGH
AV1001'THE GATE FOR APPROX 60.96 M (200.00 FT) TO THE STATION ON THE LEFT
AV1001'BETWEEN A SHELL ROAD AND A DITCH.
AV1001'THE STATION IS A STANDARD NOS ALUMINUM DISK STAMPED ---GAYLE 1991---
AV1001'ATTACHED TO A 42 INCH ALUMINUM ROD WHICH IS DRIVEN IN THE GROUND AND
AV1001'SURROUNDED BY A MASS OF CONCRETE. IT IS 12.6 M (41.34 FT) EAST OF THE
AV1001'EAST EDGE OF THE FLORENCE CANAL, 6.7 M (21.98 FT) EAST OF THE
AV1001'CENTERLINE OF THR SHELL ROAD, 5.6 M (18.37 FT) WEST OF THE WEST EDGE
AV1001'OF THE SMALL CANAL.
AV1001'DESCRIBED BY RDC.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3343 *****

BK3343 DESIGNATION - MACLAND
BK3343 PID - BK3343
BK3343 STATE/COUNTY- LA/ST LANDRY
BK3343 COUNTRY - US
BK3343 USGS QUAD - BEGGS (1992)

BK3343 *CURRENT SURVEY CONTROL

BK3343* NAD 83(2007) POSITION- 30 39 52.43065(N) 092 04 09.35401(W) ADJUSTED
BK3343* NAD 83(2007) ELLIP HT- -14.555 (meters) (02/10/07) ADJUSTED
BK3343* NAD 83(2007) EPOCH - 2002.00
BK3343* NAVD 88 ORTHO HEIGHT - 12.7 (meters) 42. (feet) VERTCON
BK3343 GEOID HEIGHT - -27.298 (meters) GEOID12B
BK3343 NAD 83(2007) X - -198,268.434 (meters) COMP
BK3343 NAD 83(2007) Y - -5,487,458.115 (meters) COMP
BK3343 NAD 83(2007) Z - 3,233,953.326 (meters) COMP
BK3343 LAPLACE CORR - -0.21 (seconds) DEFLEC12B

BK3343 Network accuracy estimates per FGDC Geospatial Positioning Accuracy Standards:

Table with 7 columns: FGDC (95% conf, cm), Standard deviation (cm), CorrNE, Horiz, Ellip, SD_N, SD_E, SD_h, (unitless). Row 1: NETWORK 21.32 10.19 5.51 9.83 5.20 -0.73583821

BK3343 Click here for local accuracies and other accuracy information.

BK3343.The horizontal coordinates were established by GPS observations and adjusted by the National Geodetic Survey in February 2007.

BK3343.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007). See www.ngs.noaa.gov/web/surveys/NSRS2007 for more information.

BK3343.The horizontal coordinates are valid at the epoch date displayed above which is a decimal equivalence of Year/Month/Day.

BK3343.The NAVD 88 height was computed by applying the VERTCON shift value to the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)

BK3343.Significant digits in the geoid height do not necessarily reflect accuracy. GEOID12B height accuracy estimate available here.

BK3343.The X, Y, and Z were computed from the position and the ellipsoidal ht.

BK3343.The Laplace correction was computed from DEFLEC12B derived deflections.

BK3343.The ellipsoidal height was determined by GPS observations and is referenced to NAD 83.

BK3343. The following values were computed from the NAD 83(2007) position.

BK3343; North East Units Scale Factor Converg.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3343;SPC LA S - 240,161.352 929,471.575 MT 0.99999266 -0 22 04.7
BK3343;SPC LA S - 787,929.37 3,049,441.33 sFT 0.99999266 -0 22 04.7
BK3343;UTM 15 - 3,392,797.550 589,164.996 MT 0.99969807 +0 28 29.0

BK3343

BK3343! - Elev Factor x Scale Factor = Combined Factor

BK3343!SPC LA S - 1.00000229 x 0.99999266 = 0.99999495

BK3343!UTM 15 - 1.00000229 x 0.99969807 = 0.99970036

BK3343

BK3343: Primary Azimuth Mark Grid Az

BK3343:SPC LA S - MACLAND AZ MK 2 144 05 48.7

BK3343:UTM 15 - MACLAND AZ MK 2 143 15 15.0

BK3343

BK3343 U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP8916492797(NAD 83)

BK3343

Table with columns: PID, Reference Object, Distance, Geod. Az. Rows include BK3343, BK3343, BK3343, BK3343, BK3343, BK3343.

BK3343

BK3343 SUPERSEDED SURVEY CONTROL

BK3343

BK3343 ELLIP H (06/26/02) -14.576 (m) GP () 4 2

BK3343 NAD 83(1992)- 30 39 52.43267(N) 092 04 09.35603(W) AD () 1

BK3343 ELLIP H (01/21/93) -14.474 (m) GP () 4 2

BK3343 NAD 83(1986)- 30 39 52.45237(N) 092 04 09.35125(W) AD () 1

BK3343 NGVD 29 (08/25/89) 12.7 (m) RAPSU86 model used GPS OBS

BK3343

BK3343.Superseded values are not recommended for survey control.

BK3343

BK3343.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BK3343.See file dsdata.pdf to determine how the superseded data were derived.

BK3343

BK3343_MARKER: DE = TRAVERSE STATION DISK

BK3343_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

BK3343_STAMPING: MACLAND 1988

BK3343_MARK LOGO: LADTD

BK3343_MAGNETIC: R = STEEL ROD IMBEDDED IN MONUMENT

BK3343_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK3343+STABILITY: SURFACE MOTION

BK3343_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

BK3343+SATELLITE: SATELLITE OBSERVATIONS - November 17, 2003

BK3343

BK3343 HISTORY - Date Condition Report By

BK3343 HISTORY - 1988 MONUMENTED LADTD

BK3343 HISTORY - 19890307 GOOD

BK3343 HISTORY - 20031117 GOOD LADTD

BK3343

BK3343 STATION DESCRIPTION

BK3343

BK3343'DESCRIBED BY LA TRANSP AND DEV 1988

BK3343'THE STATION IS LOCATED ABOUT 32.2 KM (20.00 MI) NORTHWEST OF KROTZ

BK3343'SPRINGS, 17.7 KM (11.00 MI) SOUTH OF MORROW AND 14.5 KM (9.00 MI)

BK3343'NORTH OF OPELOUSAS. OWNERSHIP--LOUISIANA DEPARTMENT OF TRANSPORTATION



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK3343'AND DEVELOPMENT.
BK3343'TO REACH THE STATION FROM THE THE INTERCHANGE OF INTERSTATE HIGHWAY 49
BK3343'AND STATE HIGHWAY 10 GO NORTH FOR 3.1 KM (1.95 MI) ON HIGHWAY 49 TO A
BK3343'BRIDGE NO. 4550222132 WITH THE MARK SET NEAR THE SOUTHWEST CORNER OF
BK3343'THE SOUTH BOUND LANE BRIDGE.
BK3343'THE STATION IS FLUSH WITH THE GROUND 8.2 M (26.9 FT) SOUTHWEST FROM
BK3343'THE CENTER OF THE SOUTH BOUND LANES OF THE INTERSTATE, 2.6 M (8.5 FT)
BK3343'SOUTH FROM THE SOUTHWEST CORNER OF THE SOUTH BOUND BRIDGE, 2.3 M
BK3343'(7.5 FT) SOUTH-SOUTHEAST FROM THE WEST END OF THE BRIDGE WINGWALL AND
BK3343'0.8 M (2.6 FT) NORTHWEST FROM A METAL WITNESS POST WITH A SIGN
BK3343'ATTACHED.
BK3343
BK3343 STATION RECOVERY (1989)
BK3343
BK3343'RECOVERED 1989
BK3343'RECOVERED IN GOOD CONDITION.
BK3343
BK3343 STATION RECOVERY (2003)
BK3343
BK3343'RECOVERY NOTE BY LA TRANSP AND DEV 2003 (SLC)
BK3343'RECOVERED IN GOOD CONDITION.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BX1127 *****

BX1127 DESIGNATION - N 15 RESET 1953
BX1127 PID - BX1127
BX1127 STATE/COUNTY- LA/RAPIDES
BX1127 COUNTRY - US
BX1127 USGS QUAD - FOREST HILL (1993)

BX1127
BX1127 *CURRENT SURVEY CONTROL
BX1127

BX1127* NAD 83(1986) POSITION- 31 03 59. (N) 092 31 24. (W) SCALED
BX1127* NAVD 88 ORTHO HEIGHT - 52.559 (meters) 172.44 (feet) ADJUSTED
BX1127

BX1127 GEOID HEIGHT - -26.788 (meters) GEOID12B
BX1127 DYNAMIC HEIGHT - 52.493 (meters) 172.22 (feet) COMP
BX1127 MODELED GRAVITY - 979,384.6 (mgal) NAVD 88
BX1127

BX1127 VERT ORDER - FIRST CLASS I
BX1127

BX1127.The horizontal coordinates were scaled from a topographic map and have
BX1127.an estimated accuracy of +/- 6 seconds.

BX1127.
BX1127.The orthometric height was determined by differential leveling and
BX1127.adjusted by the NATIONAL GEODETIC SURVEY
BX1127.in February 1994.

BX1127
BX1127.Significant digits in the geoid height do not necessarily reflect accuracy.
BX1127.GEOID12B height accuracy estimate available here.

BX1127
BX1127.The dynamic height is computed by dividing the NAVD 88
BX1127.geopotential number by the normal gravity value computed on the
BX1127.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BX1127.degrees latitude (g = 980.6199 gals.).

BX1127
BX1127.The modeled gravity was interpolated from observed gravity values.

BX1127
BX1127; North East Units Estimated Accuracy
BX1127;SPC LA N - 62,800. 997,770. MT (+/- 180 meters Scaled)
BX1127

BX1127 U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWQ454370 (NAD 83)

BX1127
BX1127 SUPERSEDED SURVEY CONTROL
BX1127

BX1127 NAVD 88 (06/15/91) 52.554 (m) 172.42 (f) SUPERSEDED 1 1
BX1127 NGVD 29 (11/26/84) 52.540 (m) 172.38 (f) ADJUSTED 1 1
BX1127

BX1127.Superseded values are not recommended for survey control.
BX1127

BX1127.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BX1127.See file dsdata.pdf to determine how the superseded data were derived.
BX1127

BX1127_MARKER: DB = BENCH MARK DISK
BX1127_SETTING: 30 = SET IN A LIGHT STRUCTURE
BX1127_SP_SET: CULVERT
BX1127_STAMPING: N 15 RESET 1953
BX1127_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BX1127		- Date	Condition	Report By
BX1127	HISTORY	- 1953	MONUMENTED	CGS
BX1127	HISTORY	- 1970	GOOD	NGS
BX1127	HISTORY	- 19990424	GOOD	USPSQD

BX1127

BX1127

BX1127

STATION DESCRIPTION

BX1127'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970

BX1127'1.7 MI N FROM FOREST HILL.

BX1127'ABOUT 1.7 MILES NORTH ALONG THE MISSOURI PACIFIC RAILROAD FROM THE

BX1127'POST OFFICE AT FOREST HILL, 16 POLES SOUTH OF MILEPOST 616, 32 1/2

BX1127'FEET WEST OF THE WEST RAIL OF THE MAIN TRACK, 28 1/2 FEET WEST OF THE

BX1127'WEST RAIL OF A SIDETRACK, 75 FEET EAST OF THE CENTER LINE OF U.S.

BX1127'HIGHWAY 165, SET IN THE TOP OF THE NORTH END OF THE WEST CONCRETE

BX1127'HEADWALL OF A CONCRETE CULVERT UNDER THE TRACK, ABOUT LEVEL WITH THE

BX1127'HIGHWAY, AND ABOUT 8 FEET BELOW THE LEVEL OF THE TRACK.

BX1127

BX1127

BX1127

STATION RECOVERY (1999)

BX1127'RECOVERY NOTE BY US POWER SQUADRON 1999

BX1127'RECOVERED IN GOOD CONDITION.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

DJ9368 *****

DJ9368 HT_MOD - This is a Height Modernization Survey Station.

DJ9368 DESIGNATION - R 393

DJ9368 PID - DJ9368

DJ9368 STATE/COUNTY- LA/ACADIA

DJ9368 COUNTRY - US

DJ9368 USGS QUAD - IOTA (1987)

DJ9368

DJ9368

DJ9368

*CURRENT SURVEY CONTROL

DJ9368* NAD 83(2011) POSITION- 30 19 38.44382(N) 092 23 49.85845(W) ADJUSTED

DJ9368* NAD 83(2011) ELLIP HT- -18.426 (meters) (06/27/12) ADJUSTED

DJ9368* NAD 83(2011) EPOCH - 2010.00

DJ9368* NAVD 88 ORTHO HEIGHT - *(meters) *(feet) NOT PUB

DJ9368 **This station is located in a suspected subsidence area (see below).

DJ9368

DJ9368 NAVD 88 orthometric height was determined with geoid model GEOID03

DJ9368 GEOID HEIGHT - -27.426 (meters) GEOID03

DJ9368 GEOID HEIGHT - -27.414 (meters) GEOID12B

DJ9368 NAD 83(2011) X - -230,464.472 (meters) COMP

DJ9368 NAD 83(2011) Y - -5,505,185.209 (meters) COMP

DJ9368 NAD 83(2011) Z - 3,201,738.719 (meters) COMP

DJ9368 LAPLACE CORR - 0.24 (seconds) DEFLEC12B

DJ9368

DJ9368 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

DJ9368 Standards:

	FGDC (95% conf, cm)		Standard deviation (cm)			CorrNE (unitless)
	Horiz	Ellip	SD_N	SD_E	SD_h	
NETWORK	0.64	3.27	0.12	0.32	1.67	0.01913972

DJ9368

DJ9368 NETWORK 0.64 3.27 0.12 0.32 1.67 0.01913972

DJ9368

DJ9368 Click [here](#) for local accuracies and other accuracy information.

DJ9368

DJ9368

DJ9368.The horizontal coordinates were established by GPS observations

DJ9368.and adjusted by the National Geodetic Survey in June 2012.

DJ9368

DJ9368.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

DJ9368.been affixed to the stable North American tectonic plate. See

DJ9368.[NA2011](#) for more information.

DJ9368

DJ9368.The horizontal coordinates are valid at the epoch date displayed above

DJ9368.which is a decimal equivalence of Year/Month/Day.

DJ9368

DJ9368 ** This station is in an area of known vertical motion. If an
DJ9368 ** orthometric height was ever established but is not available
DJ9368 ** in the current survey control section, the orthometric height
DJ9368 ** is considered suspect. Suspect heights are available in the
DJ9368 ** superseded section only if requested.

DJ9368

DJ9368.The orthometric height was determined by GPS observations and a

DJ9368.high-resolution geoid model using precise GPS observation and

DJ9368.processing techniques.

DJ9368

DJ9368.Significant digits in the geoid height do not necessarily reflect accuracy.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

DJ9368.GEOID12B height accuracy estimate available [here](#).

DJ9368

DJ9368.The X, Y, and Z were computed from the position and the ellipsoidal ht.

DJ9368

DJ9368.The Laplace correction was computed from DEFLEC12B derived deflections.

DJ9368

DJ9368.The ellipsoidal height was determined by GPS observations

DJ9368.and is referenced to NAD 83.

DJ9368

DJ9368. The following values were computed from the NAD 83(2011) position.

DJ9368

DJ9368;		North	East	Units	Scale Factor	Converg.
DJ9368;SPC LA S	-	203,026.755	897,699.081	MT	0.99994192	-0 31 55.0
DJ9368;SPC LA S	-	666,096.95	2,945,201.07	sFT	0.99994192	-0 31 55.0
DJ9368;UTM 15	-	3,355,212.723	557,949.080	MT	0.99964143	+0 18 15.8
DJ9368!	-	Elev Factor x Scale Factor = Combined Factor				
DJ9368!SPC LA S	-	1.00000289	x	0.99994192	=	0.99994481
DJ9368!UTM 15	-	1.00000289	x	0.99964143	=	0.99964432

DJ9368

DJ9368_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP5794955212 (NAD 83)

DJ9368

SUPERSEDED SURVEY CONTROL

DJ9368

DJ9368	NAD 83(2007)-	30 19 38.44393(N)	092 23 49.85946(W)	AD(2006.81) A
DJ9368	ELLIP H (03/12/08)	-18.412 (m)		GP(2006.81) 3 1

DJ9368

DJ9368.Superseded values are not recommended for survey control.

DJ9368

DJ9368.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

DJ9368.See file [dsdata.pdf](#) to determine how the superseded data were derived.

DJ9368

DJ9368_MARKER: DV = VERTICAL CONTROL DISK

DJ9368_SETTING: 34 = SET IN THE FOOTINGS OF SMALL/MEDIUM STRUCTURES

DJ9368_SP_SET: CULVERT HEADWALL

DJ9368_STAMPING: R 393 2006

DJ9368_MARK LOGO: NGS

DJ9368_MAGNETIC: N = NO MAGNETIC MATERIAL

DJ9368_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

DJ9368+STABILITY: SURFACE MOTION

DJ9368_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

DJ9368+SATELLITE: SATELLITE OBSERVATIONS - August 12, 2006

DJ9368

DJ9368	HISTORY	- Date	Condition	Report By
DJ9368	HISTORY	- 20060812	MONUMENTED	NGS

DJ9368

DJ9368

STATION DESCRIPTION

DJ9368

DJ9368'DESCRIBED BY NATIONAL GEODETIC SURVEY 2006

DJ9368'TO REACH FROM I-10 EXIT 80, JUNCTION OF STATE HIGHWAY 13 IN CROWLEY,

DJ9368'GO 6.5 MI (10.5 KM) NORTH ALONG HIGHWAY 13 TO THE JUNCTION FOR STATE

DJ9368'HIGHWAY 98 EAST AND MARK ON THE RIGHT JUST NORTH OF THIS JUNCTION IN

DJ9368'THE SOUTH END OF THE EAST HEADWALL OF A TWO-CHANNEL BOX CULVERT.

DJ9368'

DJ9368'MARK IS 350.0 FT (106.7 M) SOUTH OF THE CENTERLINE OF LA-98 WEST, 26.3



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

DJ9368'FT (8.0 M) EAST OF THE CENTERLINE OF LA-13, 91.8 FT (27.9 M) NORTH OF
DJ9368'THE CENTERLINE OF LA-98 EAST, AND 0.1 FT(0.03 M) BELOW LA-13.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0065 *****

BK0065 DESIGNATION - TT 3 R USGS

BK0065 PID - BK0065

BK0065 STATE/COUNTY- LA/EVANGELINE

BK0065 COUNTRY - US

BK0065 USGS QUAD - MAMOU (1983)

BK0065

BK0065 *CURRENT SURVEY CONTROL

BK0065

BK0065* NAD 83(1986) POSITION- 30 41 34.38 (N) 092 23 52.86 (W) HD_HELD1

BK0065* [NAVD 88](#) ORTHO HEIGHT - 21.54 (+/-2cm) 70.7 (feet) VERTCON

BK0065

BK0065 GEOID HEIGHT - -27.236 (meters) GEOID12B

BK0065 VERT ORDER - SECOND CLASS 0 (See Below)

BK0065

BK0065.The horizontal coordinates were determined by differentially corrected BK0065.hand held GPS observations or other comparable positioning techniques BK0065.and have an estimated accuracy of +/- 3 meters.

BK0065.

BK0065.The NAVD 88 height was computed by applying the VERTCON shift value to BK0065.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)

BK0065

BK0065.Significant digits in the geoid height do not necessarily reflect accuracy. BK0065.GEOID12B height accuracy estimate available [here](#).

BK0065

BK0065.The vertical order pertains to the NGVD 29 superseded value.

BK0065

BK0065; North East Units Estimated Accuracy

BK0065;SPC LA S - 243,548.3 897,995.4 MT (+/- 3 meters HH1 GPS)

BK0065

BK0065_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWP5765295721(NAD 83)

BK0065

BK0065 SUPERSEDED SURVEY CONTROL

BK0065

BK0065 NGVD 29 (11/26/84) 21.510 (m) 70.57 (f) ADJUSTED 2 0

BK0065

BK0065.Superseded values are not recommended for survey control.

BK0065

BK0065.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

BK0065.See file [dsdata.pdf](#) to determine how the superseded data were derived.

BK0065

BK0065_MARKER: DD = SURVEY DISK

BK0065_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

BK0065_STAMPING: TT 3 R 1934

BK0065_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

BK0065+STABILITY: SURFACE MOTION

BK0065

BK0065 HISTORY - Date Condition Report By

BK0065 HISTORY - 1934 MONUMENTED USGS

BK0065 HISTORY - 1961 GOOD CGS

BK0065

BK0065 STATION DESCRIPTION

BK0065

BK0065'DESCRIBED BY COAST AND GEODETIC SURVEY 1961

BK0065'IN VIDRINE.



USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001

Prime Contractor: Optimal GEO, Inc.

Sub-Contractor: Florabama

BK0065'AT VIDRINE, 209 FEET NORTH OF THE NORTHWEST CORNER OF THE HIGH SCHOOL
BK0065'BUILDING, 50 FEET EAST OF THE CENTER LINE OF STATE HIGHWAY 376, 39
BK0065'FEET NORTH OF THE CENTER LINE OF STATE HIGHWAY 10, 63 FEET NORTHEAST
BK0065'OF THE INTERSECTION OF THE HIGHWAYS, 7 FEET EAST OF A POWER POLE, 7
BK0065'FEET NORTH OF A POWER POLE, 1 1/2 FEET SOUTH OF A FENCE, ABOUT 1 FOOT
BK0065'ABOVE THE LEVEL OF THE HIGHWAYS, AND SET IN THE TOP OF A CONCRETE POST
BK0065'PROJECTING 6 INCHES.

APPENDIX “C” OPUS DATASHEETS

Shared Solution

PID: BK1142
Designation: 2 V 36 LADTD
Stamping: 2V36 1970
Stability: May hold commonly subject to ground movement
Setting: Set in top of concrete monument
Mark Condition: G
Description: Found as described
Observed: 2018-02-02T14:55:00Z [See Also 2001-12-29](#)
Source: OPUS - page5 1603.24

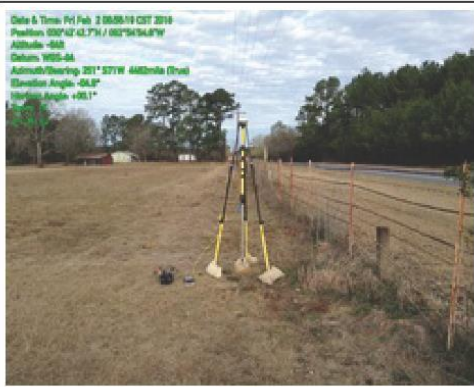


Close-up View

REF FRAME:	EPOCH:	SOURCE:	UNITS:	SET PROFILE	DETAILS
NAD_83(2011)	2010.0000	NAVD88 (Computed using GEOID12B)	m		
LAT: 30° 42' 43.16814" ± 0.003 m LON: -92° 54' 54.98284" ± 0.005 m ELL HT: 6.319 ± 0.009 m X: -279134.060 ± 0.005 m Y: -5481270.389 ± 0.009 m Z: 3238485.595 ± 0.003 m ORTHO HT: 33.393 ± 0.021 m		UTM 15 SPC 1702(LA S) NORTHING: 3397687.094m 246238.799m EASTING: 508112.761m 848470.281m CONVERGENCE: 0.04327203° -0.79098991° POINT SCALE: 0.99960081 1.00000257 COMBINED FACTOR: 0.99959982 1.00000158			

CONTRIBUTED BY

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Horizon View



The numerical values for this position solution have satisfied the quality control criteria of the National Geodetic Survey. The contributor has verified that the information submitted is accurate and complete.

Shared Solution

PID: AV0250
Designation: 57 V 35
Stamping: 57 V 35
Stability: May hold commonly subject to ground movement
Setting: Set in top of concrete monument
Mark Condition: G
Description: Found as described
Observed: 2018-02-05T13:54:00Z See Also 2010-09-25
Source: OPUS - page5 1603.24




Close-up View

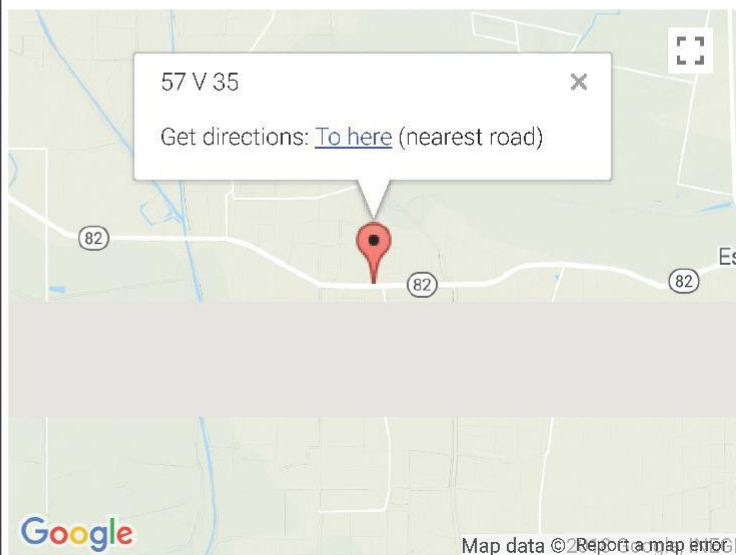
REF_FRAME: NAD 83(2011)	EPOCH: 2010.0000	SOURCE: NAVD88 (Computed using GEOID12B)	UNITS: m	SET PROFILE	DETAILS
LAT: 29° 50' 31.89631" ± 0.007 m ELL HT: -25.353 ± 0.026 m X: -213585.088 ± 0.011 m Y: -5532839.297 ± 0.019 m Z: 3155199.680 ± 0.019 m ORTHO HT: 0.918 ± 0.032 m		UTM 15 SPC 1702(LA S) NORTHING: 3301560.665m 149099.224m EASTING: 576247.490m 915219.290m CONVERGENCE: 0.39278455° -0.43869473° POINT SCALE: 0.99967173 0.99992956 COMBINED FACTOR: 0.99967571 0.99993354			

CONTRIBUTED BY

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Horizon View



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USGS LA Bayou Nezpique Lidar Survey

FGS Project Number U18001
Prime Contractor: Optimal GEO, Inc.
Sub-Contractor: Florabama

FILE: B268_0342_0340.18o OP1520890921108

NGS OPUS SOLUTION REPORT

=====

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: <https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: mlstone@florabama-gs.com DATE: March 12, 2018
RINEX FILE: b268034p.18o TIME: 21:43:28 UTC

SOFTWARE: page5 1603.24 master55.pl 160321 START: 2018/02/03 15:42:00
EPHEMERIS: igs19866.eph [precise] STOP: 2018/02/03 20:31:00
NAV FILE: brdc0340.18n OBS USED: 12895 / 13307 : 97%
ANT NAME: TRM57970.00 NONE # FIXED AMB: 46 / 49 : 94%
ARP HEIGHT: 2.0004 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.0925)

X: -257408.863(m) 0.002(m) -257409.680(m) 0.002(m)
Y: -5480125.198(m) 0.005(m) -5480123.724(m) 0.005(m)
Z: 3242191.441(m) 0.017(m) 3242191.257(m) 0.017(m)

LAT: 30 45 3.21048 0.016(m) 30 45 3.22916 0.016(m)
E LON: 267 18 38.58005 0.002(m) 267 18 38.54678 0.002(m)
W LON: 92 41 21.41995 0.002(m) 92 41 21.45322 0.002(m)
EL HGT: 3.880(m) 0.007(m) 2.553(m) 0.007(m)
ORTHO HGT: 31.019(m) 0.021(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

	UTM (Zone 15)	SPC (1702 LA S)
Northing (Y) [meters]	3402036.253	250273.742
Easting (X) [meters]	529739.796	870167.160
Convergence [degrees]	0.15887261	-0.67799220
Point Scale	0.99961091	1.00001122
Combined Factor	0.99961030	1.00001061

US NATIONAL GRID DESIGNATOR: 15RWQ2973902036(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DF7048	LESV LEESVILLE CORS ARP	N310832.877	W0931608.242	70377.4
DF7992	LSUA LSU-ALEXANDRIA CORS ARP	N311043.578	W0922444.335	54319.4
DL7622	TONY ABDALLA HALL ULL CORS ARP	N301316.947	W0920242.387	85270.9

NEAREST NGS PUBLISHED CONTROL POINT

BK1071 C 268 N304502. W0924122. 40.3

Shared Solution

PID: BK1315
Designation: BAYNE 2
Stamping: BAYNE 2 1974
Stability: May hold commonly subject to ground movement
Setting: Set in top of concrete monument
Mark Condition: G
Description: Found as described except it is now 0.20 below the surface.
Observed: 2018-01-31T17:25:00Z See Also 1987
Source: OPUS - page5 1603.24




Close-up View

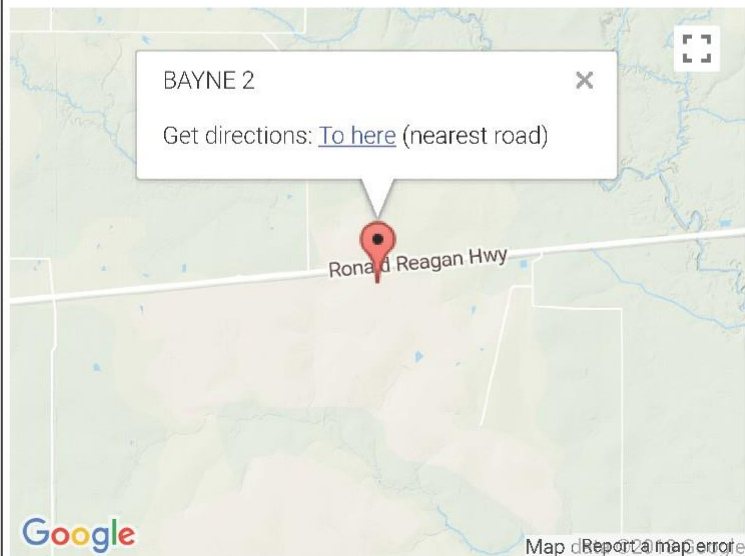
REF FRAME:	EPOCH:	SOURCE:	UNITS:	SET PROFILE	DETAILS
NAD 83(2011)	2010.0000	NAVD88 (Computed using GEOID12B)	m		
LAT: 30° 30' 48.95402" ± 0.001 m		UTM 15		SPC 1702(LA S)	
LOX: -93° 10' 15.00971" ± 0.011 m		NORTHING: 3375710.847m		224612.856m	
ELL HT: -1.852 ± 0.020 m		EASTING: 483608.753m		823639.871m	
X: -304199.084 ± 0.010 m		CONVERGENCE: -0.08674097°		-0.91877467°	
Y: -5491146.925 ± 0.018 m		POINT SCALE: 0.99960331		0.99996566	
Z: 3219552.443 ± 0.009 m		COMBINED FACTOR: 0.99960360		0.99996595	
ORTHO HT: 25.297 ± 0.028 m					

CONTRIBUTED BY

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Horizon View



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Shared Solution

PID: BBFX50
Designation: FGS 3 R 2 1
Stamping: FGS-3R2-1
Stability: Monuments of questionable or unknown reliability
Setting: A metal rod driven into ground. Describe below.
Description: Mark is located at Le Gros Memorial Airport in Morse, LA. 35.0 ft Northeast of the Northeast edge of the taxiway, 132.0 ft South-Southeast of the Northeast corner of a metal hangar, 137.0 ft Northwest of Northwest edge of an asphalt airplane parking area.
Observed: 2018-01-26T18:02:00Z
Source: OPUS - page5 1603.24



Close-up View

REF FRAME: NAD_83 (2011)	EPOCH: 2010.0000	SOURCE: NAVD88 (Computed using GEOD12B)	UNITS: m	SET PROFILE	DETAILS
LAT: 30° 9' 53.04236" ± 0.009 m LON: -92° 28' 57.97207" ± 0.007 m ELL HT: -23.414 ± 0.012 m X: -239080.889 ± 0.007 m Y: -5513902.178 ± 0.008 m Z: 3186163.653 ± 0.013 m ORTHO HT: 3.823 ± 0.023 m		UTM 15 SPC 1702(LA S) NORTHING: 3337152.402m 185081.753m EASTING: 549803.374m 889288.388m CONVERGENCE: 0.25990716° -0.57473293° POINT SCALE: 0.99963060 0.99992982 COMBINED FACTOR: 0.99963428 0.99993350			

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Horizon View



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Shared Solution

PID: BBFX47
Designation: FGS LA 01
Stamping: FGS-LA1 2018
Stability: Monuments of questionable or unknown reliability
Setting: A metal rod driven into ground. Describe below.
Description: Mark is located at the Grand Lake Faith Temple, 53 feet South of the Eastern church parking lot, 69 feet West of the Eastern-most driveway to the church, 255 feet North of the centerline of hwy 384.
Observed: 2018-01-30T15:17:00Z
Source: OPUS - page5 1603.24



Close-up View

REF FRAME: NAD_83 (2011)	EPOCH: 2010.0000	SOURCE: NAVD88 (Computed using GEOID12B)	UNITS: m	SET PROFILE	DETAILS
LAT: 30° 0' 44.73025" ± 0.017 m ELL HT: -25.501 ± 0.034 m X: -309394.942 ± 0.006 m Y: -5518880.033 ± 0.022 m Z: 3171553.726 ± 0.029 m ORTHO HT: 1.522 ± 0.039 m		UTM 15 SPC 1702(LA S) NORTHING: 3320180.488m 169124.048m EASTING: 479872.844m 819095.889m CONVERGENCE: -0.10439478° -0.93771237° POINT SCALE: 0.99960500 0.99992576 COMBINED FACTOR: 0.99960900 0.99992976			

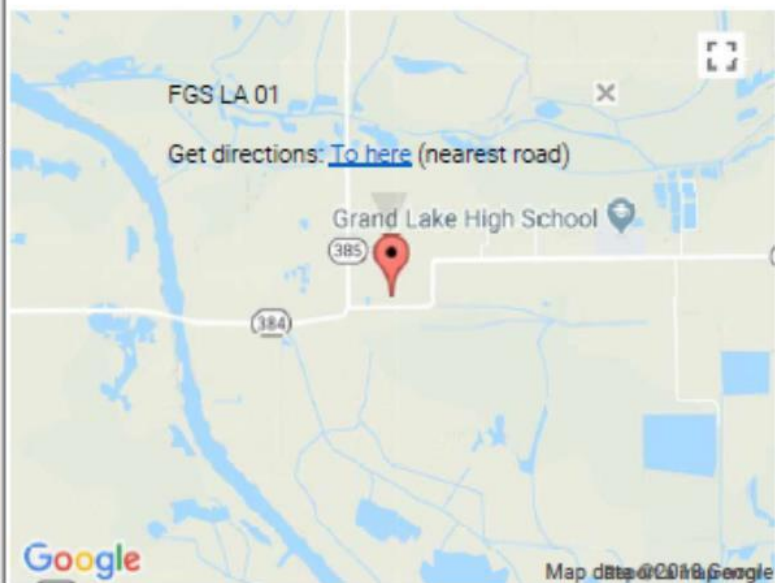
CONTRIBUTED BY

[mistone](#)

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Horizon View



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Shared Solution

PID: BBFX48
Designation: FGS LA 02
Stamping: FGS LA-02 2018
Stability: Monuments of questionable or unknown reliability
Setting: A metal rod driven into ground. Describe below.
Description: 68 feet West of the center line of Eggbend Road, 113 feet Northwest of the center line of Parish Road 1, 3 feet Southeast of 6 inch diameter fence post.
Observed: 2018-02-05T16:09:00Z
Source: OPUS - page5 1603.24



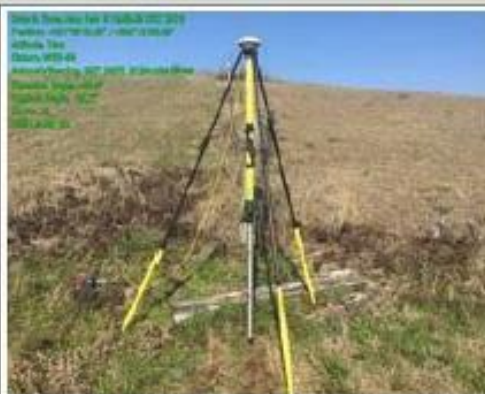
Close-up View

REF FRAME: NAD_83 (2011)	EPOCH: 2010.0000	SOURCE: NAVD83 (Computed using GEOID12B)	UNITS: m	SET PROFILE	DETAILS
LAT: 31° 6' 44.04013" ± 0.013 m LON: -92° 12' 20.42816" ± 0.002 m ELL HT: -7.857 ± 0.016 m X: -210351.974 ± 0.002 m Y: -5461515.800 ± 0.015 m Z: 3276549.216 ± 0.013 m ORTHO HT: 19.009 ± 0.025 m		UTM 15 SPC 1701(LA N) NORTHING: 3442311.624m 67921.271m EASTING: 575743.309m 1028076.690m CONVERGENCE: 0.41046037° 0.15561009° POINT SCALE: 0.99967076 1.00001279 COMBINED FACTOR: 0.99967199 1.00001402			

CONTRIBUTED BY

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Horizon View



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Shared Solution

PID: BBFX49
Designation: FGS LA 03
Stamping: FGS LA-03 2018
Stability: Monuments of questionable or unknown reliability
Setting: A metal rod driven into ground. Describe below.
Description: Set in the approximate center of a traffic circle at the intersection of Alexandria Hwy and Shreveport Hwy in Leesville, LA. 41 feet Southwest of a one way traffic sign, 120 feet North Northwest and across the circle from a light pole, 110 feet South Southeast and across the circle from a light pole.
Observed: 2018-02-05T19:43:00Z
Source: OPUS - page5 1603.24



Close-up View

REF FRAME: NAD_83 (2011)	EPOCH: 2010.0000	SOURCE: NAVD88 (Computed using GEOID12B)	UNITS: m	SET PROFILE	DETAILS
LAT: 31° 9' 39.06673" ± 0.011 m LON: -93° 16' 1.87640" ± 0.011 m ELL HT: 56.979 ± 0.009 m X: -311339.373 ± 0.011 m Y: -5453954.207 ± 0.007 m Z: 3281196.623 ± 0.012 m ORTHO HT: 83.552 ± 0.022 m		UTM 15 SPC 1701(LA N) NORTHING: 3447459.306m 73532.515m EASTING: 474535.497m 926854.076m CONVERGENCE: -0.13825510° -0.40561274° POINT SCALE: 0.99960800 1.00000132 COMBINED FACTOR: 0.99959906 0.99999237			

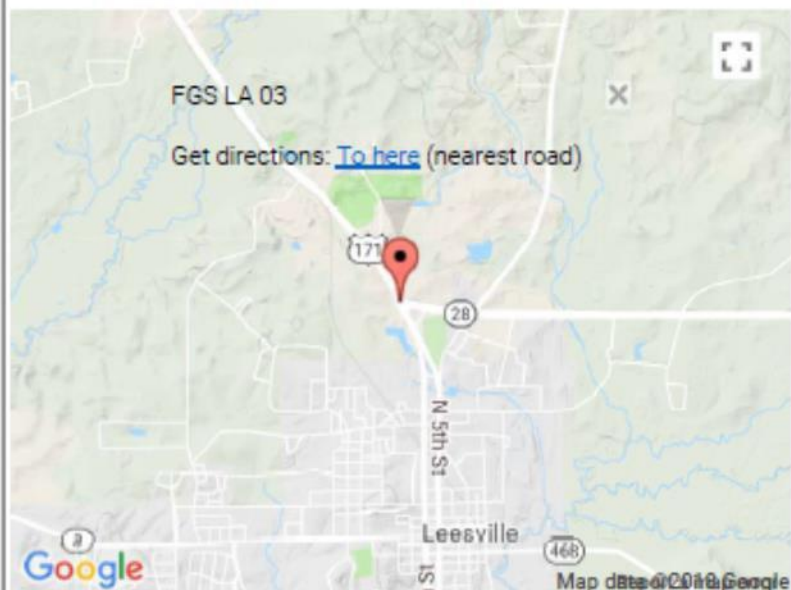
CONTRIBUTED BY

[mistone](#)

- [FloraBama Geospatial Solutions, LLC.](#)



Horizon View



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