DRAFT

SURVEY REPORT

for

GEODETIC CONTROL AND TOPOGRAPHIC SURVEYS OF SE LOUISIANA HURRICANE PROTECTION AND FLOOD CONTROL PROJECTS

W912P9-06-D-0508

Services provided by:

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PROJECT DESCRIPTION

SURVEY SUMMARY

This report documents the surveys done for the Interagency Performance Evaluation Team (IPET) for the New Orleans and vicinity Hurricane Protection System. The work was performed in greater New Orleans and SE Louisiana in order to support IPET Task Groups evaluating the performance of the existing Federal hurricane protection system. A list of the services performed is listed below:

1. High Water Mark Surveys: 5 mile levee in St Bernard Parish (TG 4—Numerical Storm Surge Models)
2. High Water Mark Surveys: Interior Orleans Parish (TG 4—Numerical Storm Surge Models)
3. High Water Mark Surveys: Plaquemines Parish (TG 4—Numerical Storm Surge Models)
4. Surge Elevation Surveys: Orleans Marina & Lakefront Airport (TG 4—Numerical Storm Surge Models)
5. Bridge Surveys: Low-Chord elevations & obstructions (TG 4—Numerical Storm Surge Models)

Orleans Outfall Canal:	4 auto bridges
London Ave Canal:	1 RR bridge ; 6 auto bridges
IHNC:	3 RR bridges
17th St Canal:	5 auto bridges

6. Pump Station Surveys: 69 pump station first floor elevations throughout region (TG 8—Pump Station Performance Assessment)
7. Pump Station Surveys: 5 pump station first floor elevations in St Charles Parish (TG 8—Pump Station Performance Assessment)
8. Lake Pontchartrain/IHNC Water Level Gage Connection Surveys—8 gages: (TG 4—Numerical Storm Surge Models)
9. Phase 1a NOAA Tidal Gage GPS Surveys (Northern Region): (TG 6 Action)
10. Phase 1b NOAA Tidal Gage GPS Surveys (Southern Region), to include ties to two gages that were part of the recent Mississippi River Book work by 3001, Inc.: (TG 6 Action)
11. IHNC West Bank SeaLand Private Levee Survey: (TG 4—Numerical Storm Surge Models)
12. IHNC West Bank Breach Area Surveys (Florida Ave to I-10 Bridge): (TG 2/3—Interior Drainage Modeling)
13. Ground Truthing/Calibration of High-Altitude JALBTCX 2005 LIDAR: (TG 1 Support)
14. Ground Truthing/Calibration of High-Altitude LSU LIDAR: Pump Station & HWM side shots (TG 1 Support)
15. Hydro/Topo Cross-Sections in Jefferson & Orleans Parishes--12 sites: (TG 2/3—Interior Drainage Model)
16. Levee/Floodwall Overbank Cross-Sections on London, 17th St, & IHNC Breach Sites: (TG 5b—Physical Model of Breaches & TG 7—Floodwall Performance Analysis)
17. Interior Drainage Topo Sections (150 +/- --- reduced to +/-85 x-sections (to be decided by field visit))—St Bernard Parish (TG 2/3 Interior Drainage Support)
18. Invert Elevations: London & Orleans Outfall Canal PS: (TG 4—Numerical Storm Surge Models)

19. TBM Descriptions: (TG 6 and MVN)
20. Orleans Outfall Canal BM ALCO to CHRYSLER Level Run (TG 1)
21. IHNC Hydro Multibeam Seabrook Bridge to ICWW (TG 5a--Storm Surge/Wave Hydrodynamics)

The data for the above items can be found in the Appendixes at the end of the report.

Survey data collection began on December 12, 2005 and is still in progress. The GPS was collected using four Trimble 4000 SSE receivers, two Trimble 4000 SSI receivers, one Trimble 4700 receiver, six fixed-height tripods, six Trimble Compact L1/L2 antennas with ground plane and one Trimble microcentered L1/L2 antenna with ground plane. The differential leveling was performed with a Leica DNA 03 differential level. There were no problems encountered during this survey.

STATIC GPS SURVEYS

STATIC GPS SUMMARY

The static GPS network for this project was designed to establish temporary benchmarks (TBM's) to be used for different phases of the project. The GPS field procedures followed the NGS Bluebook specifications, as defined by NOAA 2005 - Guidelines for establishing GPS derived orthometric heights (standards: 2cm and 5cm) as well as the guidelines established in EM 1110-1-1003.

The GPS network design was approved by the NGS Representative on Task Group 6. The network was designed to include enough existing local control to establish elevations and positions on the temporary benchmarks which were surveyed as part of the network. The network was also tied into Continuously Operating Reference Stations (CORS). The datasheets for the CORS and the NGS monuments used can be found in Appendix I and Appendix J. The network was designed with multiple, simultaneous occupations of points in order to provide redundant vectors and loop closures.

PRELIMINARY ANALYSIS

The baselines were processed using Trimble Geomatic Office's baseline processing module, WAVE (*Weighted Ambiguity Vector Estimator*). Ionosphere-free fixed solutions were found to provide the best results. Preliminary blunder detections were undertaken using "Redundant Vectors" and Global Network Closures and any extremely large errors were eliminated.

MINIMALLY CONSTRAINED ADJUSTMENT

The data are then processed using a minimally constrained geodetic control network to test the network internally, without external constraints, and produce a statistical summary. The statistics from this process are required to be within the tolerance outlined in the Geometric Geodetic Accuracy Standards and Specifications for using GPS Relative Positioning Techniques, published by the FGCC. These tolerances are represented as ellipsoids showing the margin of error value on a graph of the theoretical points, covariance values that indicate the degree of error of the vectors relative to the other vectors in the network, and a chi-squared test that compares the predicted variance determined through a least-squares analysis to the observed variance. The summary is evaluated to eliminate vectors that are outside of the error tolerances to be replaced with redundant vectors that are within the tolerances until all tolerances are met.

FULLY CONSTRAINED ADJUSTMENT

The quality of the existing horizontal controls is assessed before undertaking the constrained adjustment. Geodetic inverses between the control monuments were compared with the geodetic inverses derived from the minimally constrained least square adjustment results. This distance analysis is especially useful, since it provides a datum invariant means of comparison.
Once the minimally constrained network satisfies the requirements of the above tests, control points

in the network are selected with an optimum spatial relationship to fully constrain the network to known control points, and have their provided values entered as the position for those points and the network re-adjusted. The fully constrained positions are shown on the next two pages, and they are also in Appendix I and Appendix J. The same statistical tests are rerun on the adjusted network, as well as visually comparing adjusted values of control points to provided values of control points not used as constraints. Again, the summary is evaluated to identify vectors outside of the tolerances and constraining points reselected to obtain the best fit to the geoid where all vectors are within the prescribed tolerances.

ERROR ELLIPSES

The adjustment results show that the a posteriori variance factor of the network was close to 1.0, as should be desired, and passed the χ_2 test. None of the residual components in the network were flagged for possible rejection under the τ-max test at the 0.05 level of significance. The relative confidence ellipses reveal that the horizontal positional accuracy between all directly connected pairs of stations in the network were better than (1:100,000) at the 95% level of confidence.

Phase 1a NOAA Tidal Gage GPS Surveys
(Northern Region)

Fully Constrained GPS Network Results

Coordinate System: US State Plane 1983
Zone: Louisiana South 1702
Datum: NAD 1983
Geoid Model: GEOID03
Units: meters

Point Name	Latitude	Longitude	Northing	Easting	Elev	Ellip Ht
167 A	30°00'24.92174"N	89°56'15.25996"W	167853.820	1134649.122	2.961	-23.410
V 375	29°55'01.55071"N	89°58'18.04219"W	157858.377	1131477.366	0.710	-25.603
ALCO	30°01'36.52294"N	90°06'46.21053"W	169865.289	1117718.598	1.870	-24.540
C 189	30°04'24.49901"N	89°50'25.90011"W	175347.837	1143914.390	0.630	-26.063
DIST	29°55'53.38286"N	90°08'02.35071"W	159279.057	1115789.302	3.265	-22.928
G 365	29°54'39.52075"N	90°12'46.30725"W	156927.889	1108196.737	0.240	-25.911
hamm	30°30'47.05157"N	90°28'03.42872"W	223454.102	1083092.874	34.170	7.815
covg	30°28'33.26966"N	90°05'43.92326"W	219662.521	1118849.594	22.390	-4.302
eng 2	29°52'45.04452"N	89°56'31.48475"W	153690.042	1134386.275	8.630	-17.619
E 3145	30°04'06.73045"N	89°48'13.12962"W	174847.676	1147476.979	4.617	-21.881
PIKE RM 3	30°09'59.48574"N	89°44'15.40419"W	185795.019	1153691.743	2.579	-24.113
REGGIO 2	29°50'40.71915"N	89°45'32.43077"W	150091.312	1152121.263	1.520	-24.734

Phase 1b NOAA Tidal Gage GPS Surveys
(Southern Region)

Fully Constrained GPS Network Results

Coordinate System: US State Plane 1983
Zone: Louisiana South 1702
Datum: NAD 1983
Geoid Model: GEOID03
Units: meters

Point Name	Latitude	Longitude	Northing	Easting	Elev	Ellip Ht
149 C	29°34'19.21112"N	89°48'13.15395"W	119815.803	1148211.009	0.578	-24.354
REG 2	29°50'40.71915"N	89°45'32.43077"W	150091.312	1152121.263	1.520	-24.370
160 C	29°33'33.83238"N	89°53'05.03628"W	118316.663	1140373.393	0.191	-24.746
BTID	29°40'02.04347"N	90°06'33.55593"W	130014.797	1118483.357	-0.025	-25.425
MIL 2	29°28'05.74368"N	89°40'53.72991"W	108482.520	1160202.601	-0.150	-24.694
A 152	29°37'28.58854"N	89°54'10.66915"W	125521.799	1138516.597	0.670	-24.457
179 B	29°29'46.57419"N	90°01'32.56802"W	111155.787	1126792.415	0.811	-24.057
G 358	29°27'38.86104"N	90°18'31.16588"W	106944.590	1099392.966	0.820	-24.185
houm	29°35'32.10988"N	90°43'24.98886"W	121228.150	1059065.965	13.861	-11.507
covg	30°28'33.26965"N	90°05'43.92326"W	219662.521	1118849.594	22.195	-4.803
eng 2	29°52'45.04451"N	89°56'31.48474"W	153690.042	1134386.275	8.577	-17.443

RTK SURVEYS

RTK SURVEY SUMMARY

Real-Time Kinematic (RTK) surveys were performed in order to collect topographic data for cross sections and for ground truthing the LIDAR data. The base stations used for the RTK surveys were included in the GPS network, and the positions used for the RTK processing came from the fully-constrained output results. The field procedures for the RTK collection followed the standards and specifications from EM 1110-1-1003 and EM 1110-1-1003.

Check-in points are used to ensure the RTK positions are accurate. Throughout the course of the RTK surveys, several check-in shots are taken at points with known coordinates to compare the position obtained real-time from the RTK unit with those known coordinates to make sure that the positions are within certain accuracy. If the difference in the positions indicates an error outside of the acceptable range, data can be recollected and verified as needed.

The precision dilution of principle (PDOP) values are closely monitored during all RTK collection. The PDOP value is an indication of the geometry and the number of available satellites, the lower the value the better the geometry is for determining a position with GPS. If the PDOP is too high (over 5), the surveyors will wait until the value drops below an acceptable value to begin surveying again.

The distance from the base station to the RTK unit is also monitored to make sure that the data being collected is not more than 3 kilometers away, which can raise the level of uncertainty with the RTK positions.

RTK QUALITY CONTROL AND QUALITY ASSURANCE

All RTK data is located in the appropriate final results sections. Where applicable, the RTK data is checked along with any differential leveling data or topographic data collected at the same site. Cross section views of the data are reviewed along with plannemetric plots to ensure that there are no discrepancies with the data sets being merged. Also, RTK data collected on different days is checked to make sure that adjoining data is consistent.

The RTK logs can also be found with the corresponding data sets with anything containing RTK data. The RTK logs show when the surveys were performed, what base station was used, the antenna heights of both the roving GPS and reference station, and the antenna types of both GPS units. All information on the RTK logs is verified during the RTK processing. A sample RTK log can be found on the next page.

RTK GPS Log

Project Name: IPET TASK GROUP 6
Project No: GROUND TRUTH PATCH AREA-PATCH 1
Project Location: LAKE PONT.-NEW ORLEANS

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	JP03		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A1	P1A16	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111-HORZ
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A17	P1A31	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A32	P1A46	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3111
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A47	P1A56	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6111
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A57	P1A60	0.27FT.	TRIMBLE MICRO-CENTERED L1/L2	4111-FLDWALL-HORZ
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A61	P1A78	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3121
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A79	P1A88	2.063M	TRIMBLE MICRO-CENTERED L1/L2	A111
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A89	P1A102	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3111-ASPHALT
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	JP03		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK

Ground Check-Point Descriptive Codes

Surface Type		Sky Visibility		Surface Slope		Confidence	
1	Dirt	1	Open	1	Flat	1	Good
2	Sand	2	Part open	2	Slight Slope	2	Fair
3	Asphalt	3	Covered	3	Slope	3	Bad
4	Concrete						
5	Tall Grass						
6	Mowed Grass						
7	Trees and Brush						
8	Weeds and short grass						
9	Thick brush						
A	Thich cut grass						
B	Cultivated field - unplowed						
C	Limestone						
D	Trees and grass						
E	Gravel						
F	Brush and grass						

DIFFERENTIAL LEVELING SURVEYS

DIFFERENTIAL LEVELING SUMMARY

Differential leveling surveys were used to collect field data for cross sections and for calculating elevations on desired points (high water mark surveys, gage elevations, pump station surveys and invert elevations). The procedures for the leveling followed the standards as described in EM 1110-1-1005.

All level runs started from a point with a position which is tied to the static GPS network. In order to ensure proper readings are taken, the level run will always end on the same known point from which it started or another point with a known elevation (from the static GPS network), and the difference from the actual and the calculated elevations were checked. If the difference was more than 0.05 feet the level run would be rerun. The level runs can be found in the field books.

DIFFERENTIAL LEVELING QUALITY CONTROL AND QUALITY ASSURANCE

All differential levels are reduced in the field, and reduced again in the office. If the level run does not close to within 0.05 feet in the field, the section is rerun immediately. All level runs were then entered into a spreadsheet in the office which calculates the closure value, to verify the field results. Any discrepancies found in the field books were corrected in the office. A sample level run is shown on the next page.

Range #	Range Name	Sheet #	Bank (L or R)	Date	Time	Book - Page	Chief
51+50	51+50	0		1/16/2006		060856 / 2	MH

FILL OUT DATE AND TIME BEFORE STARTING LEVEL RUN

Sta.	+	H.I.	-	Elev.	H.I. #	Remarks	Tie
LC05				-1.22	0		
	5.40	4.18			1		
tp			5.52	-1.34			
	10.00	8.66			2		
tp			5.12	3.54			
	5.29	8.83			3		
tp			5.29	3.54			
	9.67	13.21			4		
tp			10.25	2.96			
	5.73	8.69			5		
tp			5.62	3.07			
	6.37	9.44			6		
tp			6.28	3.16			
	6.05	9.21			7		
tp			6.25	2.96			
	6.30	9.26			8		
tp			2.23	7.03			
	4.15	11.18			9		
LC05			12.42	-1.24		close	

-1.24	Final Elev.	
-1.22	Starting Elev.	
	0.02	Feet Low

H.I. #	H.I.
0	
1	4.18
2	8.66
3	8.83
4	13.21
5	8.69
6	9.44
7	9.21
8	9.26
9	11.18

W.S.#	Elev.

APPENDIX A

High Water Mark Surveys: 5 mile levee in St Bernard Parish (TG 4—Numerical Storm Surge Models)

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St Bernard Parrish Levee HWM's

Name	Latitude	Longitude	Meters Northing	Meters Easting	Feet Northing	Feet Easting	Meters	Feet NAVD88(2004.65)	Location	Reference
EBI building							3.355	11.008	Right Side of HWM Door	Book 060855, Page2
5-01C\L	29°51'29.43120"N	89°54'19.61969"W	151405.648	1137953.249	496736.697	3733434.951	4.669	15.318	C\L LEVEE	IPET6SSBPLHWM.dc
5-01N	29°51'29.71249"N	89°54'19.41976"W	151414.375	1137958.506	496765.329	3733452.198	2.758	9.049	HWM-NORTH SIDE	IPET6SSBPLHWM.dc
5-02S	29°51'29.16140"N	89°54'19.78865"W	151397.285	1137948.818	496709.259	3733420.414	3.252	10.669	HWM-SOUTHSIDE	IPET6SSBPLHWM.dc
5-03C\L	29°51'14.98946"N	89°54'13.27638"W	150963.151	1138129.024	495284.938	3734011.640	4.190	13.747	C\L LEVEE	IPET6SSBPLHWM.dc
5-03N	29°51'15.49712"N	89°54'13.26224"W	150978.785	1138129.209	495336.230	3734012.247	3.167	10.390	HWM-NORTHSIDE	IPET6SSBPLHWM.dc
5-04S	29°51'14.67900"N	89°54'13.31769"W	150953.579	1138128.035	495253.534	3734008.395	3.180	10.433	HWM-SOUTHSIDE	IPET6SSBPLHWM.dc
5-05C\L	29°51'14.67816"N	89°53'50.75187"W	150961.126	1138733.631	495278.294	3735995.254	4.297	14.098	C\L LEVEE	IPET6SSBPLHWM.dc
5-05N	29°51'14.83410"N	89°53'50.57442"W	150965.987	1138738.333	495294.242	3736010.681	3.507	11.506	HWM-NORTHSIDE	IPET6SSBPLHWM.dc
5-06S	29°51'14.44761"N	89°53'51.06677"W	150953.922	1138725.269	495254.659	3735967.820	3.194	10.479	HWM-SOUTHSIDE	IPET6SSBPLHWM.dc
5-07C\L	29°51'14.69039"N	89°53'22.37753"W	150971.071	1139495.104	495310.922	3738493.520	5.384	17.664	C\L LEVEE	IPET6SSBPLHWM.dc
5-07N	29°51'14.92814"N	89°53'22.40073"W	150978.383	1139494.389	495334.912	3738491.175	4.101	13.455	HWM-NORTHSIDE	IPET6SSBPLHWM.dc
5-08S	29°51'14.41442"N	89°53'22.34517"W	150962.586	1139496.080	495283.084	3738496.722	3.618	11.870	SOUTHSIDE	IPET6SSBPLHWM.dc
5-09C\L	29°51'14.68217"N	89°53'09.29360"W	150975.248	1139846.239	495324.626	3739645.536	5.064	16.614	C\L LEVEE	IPET6SSBPLHWM.dc
5-09N	29°51'14.87537"N	89°53'09.28628"W	150981.199	1139846.360	495344.150	3739645.933	3.951	12.963	NORTHSIDE	IPET6SSBPLHWM.dc
5-10S	29°51'14.43593"N	89°53'09.30590"W	150967.663	1139846.004	495299.741	3739644.765	3.597	11.801	SOUTHSIDE	IPET6SSBPLHWM.dc
5-11C\L	29°51'14.74983"N	89°52'16.15109"W	150995.439	1141272.387	495390.869	3744324.490	5.610	18.405	C\L LEVEE	IPET6SSBPLHWM.dc
5-11N	29°51'14.87947"N	89°52'16.03438"W	150999.470	1141275.468	495404.094	3744334.598	4.855	15.928	NORTHSIDE	IPET6SSBPLHWM.dc
5-12S	29°51'14.44777"N	89°52'16.38898"W	150986.058	1141266.121	495360.092	3744303.932	3.671	12.044	SOUTHSIDE	IPET6SSBPLHWM.dc
5-13C\L	29°51'14.73845"N	89°51'21.79726"W	151013.798	1142731.071	495451.102	3749110.189	5.234	17.172	C\L LEVEE	IPET6SSBPLHWM.dc
5-13N	29°51'14.88837"N	89°51'21.72895"W	151018.438	1142732.845	495466.325	3749116.009	4.516	14.816	CHK	IPET6SSBPLHWM.dc
5-14S	29°51'14.41077"N	89°51'21.92778"W	151003.665	1142727.699	495417.858	3749099.126	3.229	10.594	SOUTHSIDE	IPET6SSBPLHWM.dc
5-16C\L	29°51'14.77530"N	89°50'16.01430"W	151037.834	1144496.454	495529.960	3754902.116	4.365	14.321	C\L LEVEE	IPET6SSBPLHWM.dc
5-16N	29°51'14.93563"N	89°50'16.03713"W	151042.763	1144495.777	495546.132	3754899.895	3.335	10.942	NORTHSIDE	IPET6SSBPLHWM.dc
5-17S	29°51'14.62648"N	89°50'15.98655"W	151033.263	1144497.259	495514.964	3754904.757	3.568	11.706	SOUTHSIDE	IPET6SSBPLHWM.dc
5-18C\L	29°51'14.75377"N	89°49'31.50719"W	151052.826	1145690.885	495579.147	3758820.845	4.392	14.409	C\L LEVEE	IPET6SSBPLHWM.dc
5-18S	29°51'14.65962"N	89°49'31.50713"W	151049.927	1145690.925	495569.635	3758820.976	3.935	12.910	SOUTHSIDE	IPET6SSBPLHWM.dc
5-19C\L	29°51'14.74767"N	89°49'06.02239"W	151061.660	1146374.813	495608.130	3761064.699	4.457	14.623	C\L LEVEE	IPET6SSBPLHWM.dc
5-19S	29°51'14.67973"N	89°49'06.02096"W	151059.569	1146374.879	495601.269	3761064.916	4.165	13.665	SOUTHSIDE	IPET6SSBPLHWM.dc
5-20C\L	29°51'14.95777"N	89°47'03.85224"W	151111.963	1149653.352	495773.165	3771821.039	5.013	16.447	C\L LEVEE	IPET6SSBPLHWM.dc
5-20N	29°51'15.18445"N	89°47'03.90685"W	151118.922	1149651.792	495795.997	3771815.921	3.646	11.962	NORTSIDE	IPET6SSBPLHWM.dc
5-21C\L	29°51'19.20169"N	89°46'47.68063"W	151248.495	1150085.570	496221.104	3773239.074	5.320	17.454	C\L LEVEE	IPET6SSBPLHWM.dc
5-21N	29°51'19.50776"N	89°46'47.74117"W	151257.896	1150083.818	496251.947	3773233.326	3.574	11.726	NORTHSIDE	IPET6SSBPLHWM.dc
5-22S	29°51'18.95535"N	89°46'47.60895"W	151240.937	1150087.597	496196.307	3773245.724	3.737	12.260	SOUTHSIDE	IPET6SSBPLHWM.dc
GPLDA 1	29°51'49.71192"N	89°54'32.80371"W	152025.629	1137591.685	498770.751	3732248.720	5.839	19.157	CHK	IPET6SSBPLHWM.dc
GPS TSPO	29°51'34.55870"N	89°46'31.23986"W	151727.276	1150520.349	497791.905	3774665.512	4.993	16.381	CHK-COE GPS MARK	IPET6SSBPLHWM.dc
L 278	29°52'34.17152"N	89°53'45.38529"W	153410.301	1138846.952	503313.629	3736367.042	2.111	6.926	RTK BASE	IPET6SSBPLHWM.dc
REGGIO2	29°50'40.71915"N	89°45'32.43077"W	150091.312	1152121.263	492424.579	3779917.844	1.521	4.990	RTK BASE	IPET6SSBPLHWM.dc
STMY	29°51'16.13666"N	89°47'42.38442"W	151134.327	1148618.796	495846.538	3768426.833	2.078	6.818	RTK BASE	IPET6SSBPLHWM.dc

IPET Group 6 - Phase 2-3
Levels to EBI Bldg. HWM
LAT. 29-51-783N Long. 89-54-456W

STA	+	HI	−	Elev.	
GPLDA-1				19.074	
	2.298	21.372			
TP			11.258	10.114	
	0.894	11.008			
EBI-HWM Bldg - DOOR			0.000	11.008	
	0.000	11.008			
TP			0.894	10.114	
	10.261	20.875			
GPLDA.1	+½		1.802	19.073	T
				19.074	G
				0.001	E

HAVARD & CREW 04 JAN 2006 (2)
(SOUTH ST. BERNARD PARISH Levee)

Remarks
~~Remarks~~ Ref MW - TBM

Ref. Job Scope Pg. 13

See Above

APPENDIX B

High Water Mark Surveys: Interior Orleans Parish
(TG 4—Numerical Storm Surge Models)

	NAVD88(2004.65	Reference	
LOCATION	ELEVATION	Book	Page
HWM 6422 PEOPLES	-3.122	60851	2
HWM 5438 ST FERDINANO	-5.904	60851	4
HWM 5544 ST FERDINANO	2.190	60851	3
HWM CORNER PEOPLES AND EDGE	-3.870	60851	6
HWM 2930 FLORIDA AVENUE	-3.589	60851	8
HWM OP# 3	10.041	60851	19
HWM OP-6	13.390	60850	32

High Water Marks

	SHA	+	H.I.	−	Elev.
TBM 6422	5.049				−6.043 ~~100.00~~
HWM.	1.332			2.128 ~~2.138~~	−3.122
				4.254	−6.044
			Tie		

Level Check

	SHA	+	H.I.	−	Elev.
Rod A.	4.863	104.863			100.00
Rod B.	4.884	105.995		3.752	101.111
Rod A.				5.999	99.996
				Error =	0.004

Tie

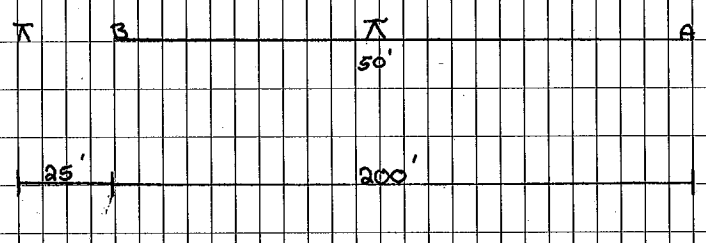
R. Bullock
M. Penn
M. Everett
Jason Kiker

12-14-05

(2)

GPS Elev.

6422 Ruples



RB
MP
ME
JK

12-14-05

High Water Mark

Sta	+	HI	−	Elev.
TBM 5544 ~~4.915~~	5.751	−1.300 ~~105.751~~		−7.051 ~~100.00~~
HWM. (−4.210)			3.490 +	+2.190
~~TP~~		−2.020	~~3.619~~	
TBM 5544			5.028	−7.048 F
~~HWM~~				−7.051 G
		Tie		+0.003 E

Description:

Rod Inverted 5544 St. Facing North

High Water Mark

Sta	+	HI	−	Elev.
TBM 5544				-7.051
	5.488			
TP	5.425		5.876	
HWM.	4.204		3.890	-5.904
TP	5.952		5.639	
TBM 5544			5.668	-7.055 F
				-7.057
		Tie		
				-0.004 E

R.B
M.P
M.E
J.K

12-14-05

Description:

Address 5438 St Ferdinand

R.B
M.P
M.E
J.K

12-14-05

Description:

Address = Corner of Peoples and Edge.

High Water Mark cont...

Sta	+	HI	−	Elev.
TP				-6.222
	4.127	-2.095		
TP.			4.217	-6.312
	4.475	-1.837		
HWM.			2.033	-3.870
	2.200	-1.670		
TP.			4.586	-6.256
	4.210	-2.046		
TP.			3.976	-6.022
	3.982	-2.040		
TP.			3.626	-5.666

cont.. next pg.

R.B
m.P
m.E
Jk

12-14-05

20' x 8' High Water mark. Cont...

Sta	+	HI	−	Elev.
TBM OP17.				-2.146
	7.217	5.071		
TP			2.504	2.567
	3.787	6.354		
T.P			3.968	2.386
	3.193	5.579		
T.P			7.010	-1.431
	1.527	0.096		
HWM.			3.685	-3.589
	3.754	0.165		
T.P			1.948	-1.783
			Cont.. next pg.	

Description:

Eval 8 wall = OP-17

Address = 2930 Florida AVE.

RB
MP
ME
JK

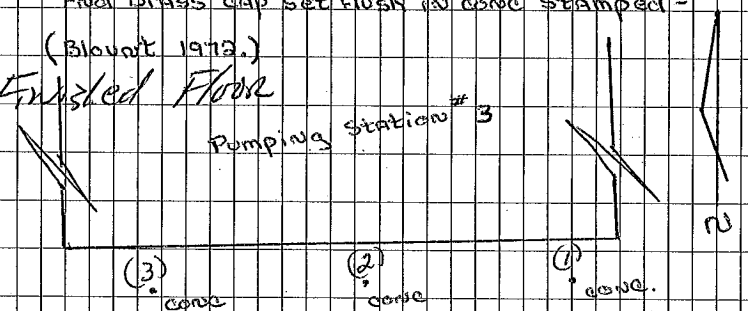
12-15-05

HWM and Low Crd. Levels

Sta	+	HI	−	Elev.
TBM. Blount = Blou				-1.352
	5.971	4.619		
FF			3.389	1.230
Conc. (1)			1.458	3.161
" (2)			1.486	3.133
" (3)			1.449	3.170
	1.609	4.779		
TBM.			6.132	-1.353 F
				-1.352 G
		Tie		+0.001 ft
TBM.				-1.352
	3.082	1.730		
TP			7.506	-5.776
	9.922	4.146		
TP			0.097	4.049
	9.515	13.564		
Low Crd.			7.793	5.771
HWM.			3.523	10.041
Low Crd.	0.749		0.749	
Low Crd.	1.6604			
T.P			9.652	3.912

Description:

Found Brass cap set Flush in conc stamped -
(Blount 1972.)



Found Brass cap set Flush in conc. stamped -
(Blount 1972.)

Blount

London - 1 RXR Bridge
High Water Mark - R/R gate
London - 3 I 610 } Not Needed
London - 3A.

1-15-06

Low Cord @ OP#6 - R/R Bridge

Sta	+	H.I.	−	Elev
OP#6				-0.289 = -0.29
	9.56	9.27		
TP			4.89	4.38
	11.00	15.38		
Top Conc Wall - North side			1.99	13.39
Low Cord			9.92	5.46
	10.55	16.01		
TP			11.63	4.38
	9.14	13.52		
OP#6			13.81	-0.29 F
				-0.29 G
				0.00 E

PK Nail - Asphalt Parking Lot of OP#6 Pump Station

Top Conc Wall North side OP#6
Low Cord - R/R Bridge - 17th St Canal - 2.

→ High water marks Survey - Section 3. of Scope

APPENDIX C

High Water Mark Surveys: Plaquemines Parish
(TG 4—Numerical Storm Surge Models)

Location	NAVD 88(2004.65 Elevation	Reference Book	Page
LA 0110 Lower Plaquimines HWM	12.170	60858	4
LA 0111 Lower Plaquimines HWM	-0.540	60858	5
LA 0112 Lower Plaquimines HWM	7.010	60858	6
LA 0113 Lower Plaquimines HWM	6.920	60858	7
LA 0114 Lower Plaquimines HWM	7.560	60858	8
LA 0115 Lower Plaquimines HWM	12.100	60858	9
LA 0116 Lower Plaquimines HWM	13.865	60858	10
LA 0117 Lower Plaquimines HWM	13.925	60858	11
LA 0118 Lower Plaquimines HWM	14.060	60858	12
LA 0119 Lower Plaquimines HWM	15.480	60858	13
LA 0120 Lower Plaquimines HWM	16.230	60858	14
LA 0121 Lower Plaquimines HWM Bottom	14.810	60858	15
LA 0121 Lower Plaquimines HWM Top	15.350	60858	15

Lower Plaquemines - HWM's - #110 to #121

STA	+	H.I.	−	ELEV	
Ø110Ø				2.93	
	6.25	9.18			
TP			4.22	4.96	
	5.44	10.40			
LA Ø110	1.51	11.91			
	−1.49	10.42			
TP			5.46	4.96	
	4.27	9.23			
Ø110Ø			6.30	2.93	F
				2.93	G
				0.00	E

HWHMS

4 FEB 2006 (4)

Passport
McNeil
GPS ELEV. 2004.65

Inverted Rod - HWM LA 110Ø

Inverted Rod " " "

Ref. Above

Levels to LA Ø112

Sta	+	H.I.	−	Elev
Ø112				-3.251
	3.59	0.34		
TP			2.56	-2.22
	5.70	3.48		
LA Ø112-Floor			4.28	-0.80
	4.16	3.36		
TP			5.66	-2.30
	2.62	0.32		
Ø112			3.55	-3.23 F
				-3.25 G
				-0.02 E

4-Feb-06 (5)

GPS Elev 2004.65

Shot on Slab. Paneling Missing Building Has Been gutted.

Ref. Above

Levels	to		CA	ϕ112
STA	+	H.I	−	ELEV
ϕ112				-3.25
	4.54	1.29		
TP			5.41	-4.12
	5.35	1.23		
TP			2.66	-1.43
	5.33	3.90		
TP			4.04	-0.14
	9.31	9.17		
CA ϕ112			2.42	6.75
	2.38	9.13		
TP			9.27	-0.14
	0.47	0.33		
TP			4.37	-4.04
	4.35	0.31		
~~ϕ112~~ TP			3.75	-3.44
	4.25	0.81		
ϕ112			4.04	-3.23 F
				-3.25 G
				-0.02 C

4-Feb-06 (6)

GPS ELEV. 2.004.65

HWM CA ϕ112

ROF Above

4-Feb-06 (7)

Levels to CA Φ113

STA	+	H.I.	−	Elev
Φ113				-3.34
	6.36	3.02		
LA Φ113	3.65	6.67		
	3.62	3.05		
Φ113			6.39	-3.34 E
				-3.34 G
				0.00 E

GPS Elev. 2004.65

INV Rod

Ref. Above

Levels to Ch Φ114

Sta	+	H.I.	−	Elev
Φ114				-0.91
	6.44	5.53		
TP			5.60	-0.07
	6.14	6.07		
TP			4.91	1.16
	4.91	6.07		
Ch Φ114	1.25	7.32		
	1.21	6.11		
TP			4.48	1.63
	3.57	5.20		
TP			6.10	-0.90
	4.74	3.84		
Φ114			4.75	-0.91 E
				-0.91 G
				0.00 E

GPS Elev 200 E. 65

Invert: R00 Ch Φ114

Ref. Above

Levels to CA ϕ115

Sta	+	H.I.	−	Elev
ϕ115				-2.20
	5.45	3.25		
TP			4.01	-0.76
	7.25	6.49		
TP			1.95	4.54
	8.61	13.15		
CA ϕ115			1.25	11.90
	1.23	13.13		
TP.			8.60	4.53
	0.68	5.21		
T.P.			5.95	-0.74
	3.91	3.17		
ϕ115			5.36	-2.19 F
				-2.20 G
				-0.01 E

04-Feb-06 (9)

GPS Elev. 2004.65

CA ϕ115

Ref Above

Levels to LA 116

STA	+	H.I.	−	Elev.
Φ117				0.105
	7.58	7.685		
TP			5.21	2.475
	6.04	8.515		
LA 116	5.16	13.675		
	5.23	8.445		
TP			5.94	2.505
	5.25	7.755		
Φ117			7.65	0.105 F
				0.105 G
				0.000

4-706-06 (10)

GPS Elev. 2004.65

Hwm LA 116

Ref above

Levels to CA 117

Sta	+	H.I.	−	Elev.
⌀117				0.105
	5.42	5.525		
TP			2.98	2.545
	5.48	8.025		
CA ⌀117	5.71	13.735		
	5.69	8.045		
TP			7.46	0.585
	5.12	5.705		
⌀117			5.59	0.115 F
				0.105 E
				0.010

4-7-06 (1)

GPS Elev 2004.65

Hwm CA 117 -

Ref Above

4-Feb-06

Levels to LA 118

STN	+	H.I.	−	elev
⌀118				0.60
	4.64	5.24		
T.P.			3.40	1.84
	9.89	11.73		
T.P.			3.02	8.71
	10.40	19.11		
TP			5.38	13.73
	5.41	19.14		
LA 118			5.27	13.87
	5.25	19.12		
TP			5.40	13.72
	5.35	19.07		
TP			10.37	8.70
	2.31	11.01		
TP			9.21	1.80
	3.42	5.22		
⌀118			4.61	0.61 E
				0.60 G
				+0.01 E

GPS elev. 2004.65

Harm LA 118

Ref Hours

Levels to LA 119

STA	+	Ht.	−	elev
Φ119				-1.581
	9.82	8.24		
TP			1.07	7.17
	11.28	18.45		
LA Φ119			3.14	15.31
	3.12	18.43		
TP			11.26	7.17
	1.06	8.23		
Φ119			9.80	-1.57 F
				-1.58 G
				-0.01 E

4-Feb-06 (13)

GPS Elev. 2004.65

Hum LA 119

Ref. Above.

Levels to CA 120

STA	+	H.I.	−	Elev	
Bmp.Rc AZ MK 2				-0.03	
TP	16.38	16.35	3.84	12.51	
	5.43	17.94			
CA 120			1.71	[16.23]	
TP	1.69	17.92	5.41	12.51	
	3.73	16.24			
Bmp.Rc AZ MK 2			16.25	-0.01	F
				-0.03	S
				+0.02	E

3004.65 Elev. PID = AT0231

Hawn CA 120

Ref. Above

Levels to LA 121

STA	+	Hi	−	Elev.
ϕ121				2.15
	5.60	7.95		
LA 120	6.72	[14.67]		
	7.26	[15.21]		
	7.20	8.01		
ϕ121			5.85	2.16 E
				2.15 G
				+0.01 ✓

(15)

04-Feb-06

GPS Elev - 2004.65

Inv. Rod - Hwm LA 121 (Bottom / Top)

Ref. Above

APPENDIX D

Surge Elevation Surveys: Orleans Marina & Lakefront Airport
(TG 4—Numerical Storm Surge Models)

High Water Marks At Lakefront Airport			
	NAVD88(2004.65)	Reference	
	FEET	Book	Page
HWM APH 01	6.720	060851	68-69
HWM APH 02	9.544	060851	68-69
HWM APH 03	10.632	060851	33
HWM APH 04	11.988	060851	33
HWM APH 05	11.300	060851	33
HWM APH 06	9.654	060851	33
HWM APH 07	11.561	060851	68-69
HWM APH 08	10.204	060851	68-69
HWM APH 09	8.891	060851	68-69
HWM APH 10	10.261	060851	68-69
HWM APH 11	7.350	060851	68-69
HWM APH 12	7.064	060851	68-69
HWM APH 13	8.250	060851	68-69

High Water Marks at Orleans Marina			
	NAVD88(2004.65)	Reference	
	FEET	Book	Page
HWM OM 1	2.972	060851	70
HWM OM 2	3.734	060851	70
HWM OM 3	5.060	060851	70
HWM OM 4	7.006	060851	70
HWM OM 5	6.996	060851	70
HWM OM 6	10.067	060851	70
HWM OM 7	11.893	060851	70
HWM OM 8	9.805	060851	70
HWM OM 9	12.519	060851	70

RB
MP
ME
JK

12-16-05

Levels — Const...

Sta	+	HI	−	Elev.	
TBM. APØ1				0.817 ~~0.249~~	Feet ~~meters~~
	7.827	~~8.076~~			
HWM.			1.924	6.720 ~~6.152~~	
	2.018	~~8.170~~			
HWM.			0.488	8.250 ~~7.682~~	
	0.243	~~7.925~~			
HWM.			1.429	7.064 ~~6.496~~	
	1.762	~~8.258~~			
T.P			4.036	4.79 ~~4.222~~	
	4.864	~~9.765~~ ~~9.086~~		9.654	
HWM.	1.646			6.436	
HWM.	0.978			5.788	
HWM.	2.334			7,124	
TP.			1.232.	8.422 ~~7.854~~	
	5.139	13.561 ~~13.993~~			
HWM.			3.300	10.261	
HWM			3.357	10.204	
HWM			4.670	8,891	
HWM.			2.000	11.561	
TP.			7.656	5,905 ~~5.337~~	
	3.907	~~9.244~~			
HWM.			0.268	9.544	

Descriptions:

Feet = 0.817 APØ1

APH-Ø1 6.720'

APH-13 8.250'

APH-12 7.064

4.790

APH-06 = H.I.

Rod Inverted on APH-Ø5

APH-Ø3

APH-Ø4

8.422 Fwd Brass Cap Stamped (Y152 Reset 1963)

APH-10

APH-8

APH-9

APH-Ø7

5.905

APH-Ø2

HWM @ Lake Front Airport...

Sta	+	HI	−	Elev.
AP-01				0.817
	7.641	8.458		
T.P			5.442	3.016
	5.732	8.748		
APH-01			2.057	6.691
APH-13			0.533	8.215
APH-12			1.714	7.034
T.P			3.989	4.759
	4.429	9.188		
T.P			0.800	8.388 ~~9.188~~
	5.054	13.442		
APH-09			4.578	8.864
APH-08			3.273	10.169
APH-10			3.214	10.228
APH-07			1.903	11.539

Sta	+	HI	−	Elev.
T.P			7.430	6.012
	2.927	8.939		
APH-11			1.629	7.310
T.P			4.378	4.561
	5.329	9.890		
APH-02			0.367	9.523
T.P			5.227	4.663
	5.472	10.135		
T.P			5.369	4.766
	3.883	8.649		
T.P			4.799	3.850
	4.768	8.618		
AP-01			7.804	0.814

LEVEL CHECK
ORLEANS MARINA

STA	+	H.I.	-	ELEV.
OM∅3				5.060
	6.302	11.362		
			8.386	2.976
			7.626	3.736
			5.753	5.609
			4.366	6.996
			1.295	10.067
	0.544			11.906
			2.178	9.184
	1.124			12.486
T.P			5.053	6.309
	4.526	10.835		
			1.025	9.810
	1.686			12.521
T.P			4.526	6.309
	4.796	11.105		
om ∅3			6.047	5.058 FD
				5.060 GN
				-0.002

12-22-05 70/2

REF. this BK. pg 36.

om∅1
om∅2
OM∅4
OM∅5
OM∅6
OM∅7 Rod Inverted
OM∅9
TOP OF WALL @ OM∅9 Rod Inverted

om ∅8
Top of wall @ Ship #5 Rod Inverted

APPENDIX E

Bridge Surveys: Low-Chord elevations & obstructions
(TG 4—Numerical Storm Surge Models)

The data for this item has been uploaded to the ftp site in the folder called “TG4—Bridge Low Chord.” Due to the size of the dataset it is not included in this section.

APPENDIX F

Pump Station Surveys: 69 pump station first floor elevations throughout region (TG 8—Pump Station Performance Assessment)

The data for this item has been uploaded to the ftp site in the folder called “TG8—Pump Station Elevations.” Due to the size of the dataset it is not included in this section.

APPENDIX G

Pump Station Surveys: 5 pump station first floor elevations in St Charles Parish (TG 8—Pump Station Performance Assessment)

The data for this item has been uploaded to the ftp site in the folder called “TG-8 Pump Station Elevs-St Charles Parish.” Due to the size of the dataset it is not included in this section.

APPENDIX H

Lake Pontchartrain/IHNC Water Level Gage Connection Surveys—8 gages: (TG 4—Numerical Storm Surge Models)

3001®
the geospatial company

Gage Connection Survey.

Name	Point Name	Elevation (NAVD88 feet 2004.65)	Elevation (LMSL feet)	Field Book Location	
				Book	Page
USGS at I-10 and Inner Harbor Navigation Canal (IHNC)	RP-1	10.09'		060855	36
Orleans Levee District Staff Gage at I-10 and IHNC	Staff Gage -10' Mark	9.62'		060855	36
USGS Gage at Parish Road(I510) bridge over IWW	RP-1	6.496'		060850	27
Orleans Levee District Gage at Southshore Marina	Staff Gage - 0' Mark	-0.079'		060850	28-31
	1A (PID-BJ1394 Original reference point)	8.33'		060850	28-31
	RP-A (New reference point set)	4.42'		060850	28-31
Pass Manchac at Turtle Cove at Pontchatoula, LA	GPS-1	2.838'		060850	25-26
	RP-1	2.41'		060850	25-26
	RM-1	2.45		060850	25-26
Little Irish Bayou near HWY 11 near Slidell, LA	AGO6	3.62'		060855	27
	GPS-1	4.96'		060855	27
	RM-1	5.00'		060855	27
	RP-1	9.67'		060855	27
	RM-2	5.02'		060855	27
Weather Service Mid-Lake Gage	AGO7	9.07'		060858	29
	SCREW	11.97'		060858	29
	RM-1	9.06'		060858	29
	Top Lip PVC Pipe	12.92'		060858	29

NWS USGS & ORLEANS LEVEE BOARD Gages
Little Irish Bayou @ Hwy 11 Near Slidell, LA.

STA.	+	HI	−	Elev.
AG06				3.62
	4.92	8.54		
GPS 1			3.58	4.96
	3.40	8.36		
R.M. 1			3.36	5.00
	6.50	11.50		
R.P. -1			1.83	9.67
	1.29	11.16		
R.M. 2			6.14	5.02
	5.74	10.76		
AG06			7.14	3.62 E.
				3.626
				0.00 E

HAYARD & PTY 10 JAN. 2006 (27)

Remarks

GPS-

GPS 1 - CHISELED SQUARE ON SE ABUTMENT

R.M. 1 - CHISELED X ON SW ABUTMENT

R.P. - 1 - HEAD OF A 1/4" BOLT ON THE SE SIDE OF GAGE HOUSE

R.M. 2 - CHISELED SQUARE ON MID ABUTMENT

SEE A BOOK

Howard & Crew Jan 12, 2006

Industrial Canal Gages
L & N Bridge under the I-10 High Rise

STA.	+	IH	−	EL.	
TBm F				10.262	
	4.12	14.38			
R.P.1			4.29	10.09	
	3.98	14.07			
STAFF Gage			4.45	9.62	
	4.37	13.99			
TBm F	Hz		3.74	10.25	E
				10.262	G
				-0.01	E

Levels
(Cont'd Next Pg)

Remarks

Ref. Bk. 2 Pg 52

Top 1½" Alum. & Iron disc @ the NW Pressure Transducer Pipe. (USGS Gage)

Top of wooden Lower Bonnet Dock STAFF Gage - 10 Ft. mark on gage

See Above

Pass Manchac @ Turtle Cove
USGS Gage Site
Southeastern Louisiana University
~~EXPERIMENT STATION~~
ENVIROMENTAL RESEARCH STATION

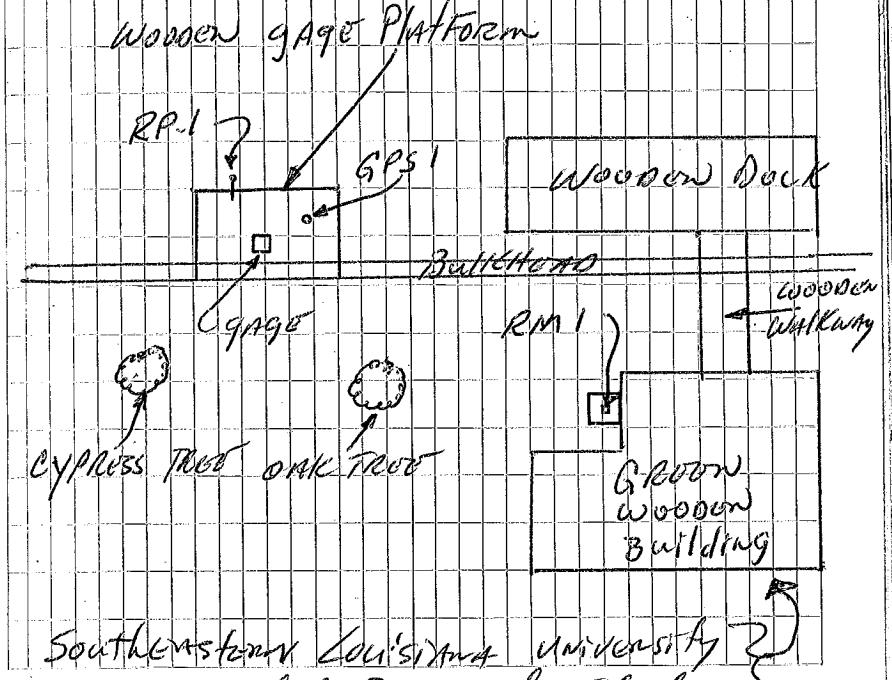
GPS-1 is A PK NAIL set Flush with the Top of the wooden gage Platform 6.7' NE of the gage and 29.9' North of an 8" oak tree.

RM 1 is A chiseled square in a 3.9' x 2.4' Concrete Slab on the North side of Building 23.5' NE of the NW Corner of the Building. 80.9' SE of GPS-1 and 85.2' SE of the gage.

Purpera, J.
Webb, B.
Dial, M.

1-14-06

RP-1 = Lag Bolt in outside face of gage Platform - 0.6' Below Top of Deck of gage Platform 5.6' N.W of gage. 3.0' east of N.W. Corner of gage Platform 9.5' N.W. of GPS 1.



1-14-06

Pass Manchac - Turtle Cove
USGS Gage Site
Level Run

STA	+	H.I.	−	Elev.
GPS-1				2.638 = 2.84
	4.15	6.99		
RP-1			4.58	2.41
	4.85	7.26		
RM-1			4.81	2.45
	4.66	7.11		
GPS-1			4.28	2.83 F
				2.84 G
				-0.01 E

GPS - Nail in Dock - see sketch
19.25

USGS Gage - I-510

Sta	+	H.I.	−	Elev
1678 A (1982)				10.016
	3.45	13.466		
TP			9.10	4.366
	3.83	8.196		
W.S.			9.63	-1.434
RP 1		≠	1.700	6.496
	1.65	8.146		
TP			3.78	4.366
	9.25	13.616		
1678 A 1982			3.60	10.016 F
				10.016 G
				0.000 E

Purpera
Webb
Dial
Johnson

1-15-06

= GPS Point 167A

Measure up to RP.1 From water Surface = 1.94 = Elev. 6.506F - Given 6.496 2-Filed marks on Top of Alumn. & Iron above gage Transducer. On The South Side of Bridge Pier on I-510. First Pier North of South Waters gage.

1-15-06

Levels – Gage at Southshore Marina

Sta	+	Hi	–	Elev.
APO1				0.817=0.82
	5.35	6.17		
TP			4.30	1.87
	5.65	7.52		
TP			4.32	3.20
	5.83	9.03		
TP			4.49	4.54
	4.50	9.04		
TP			5.12	3.92
	5.46	9.38		
TP			3.95	5.43
	4.25	9.68		
TP			4.12	5.56
	4.16	9.72		
1A			1.39	8.33
	0.85	9.18		
			3.63	5.55
	4.15	9.70		
			4.28	5.42
	4.05	9.47		
			5.55	3.92
	5.72	9.64		

GPS

PID - BS1394

1-15-06

Levels - Cont

	+	H.I.	-	Elev
SCA		9.64		
TP			5.10	4.54
	4.71	9.25		
TP			6.05	3.20
	4.74	7.94		
TP			6.06	1.88
	4.55	6.43		
APOI			5.61	E 0.82
				S 0.82
				E 0.00

BM-1A to Gage Site
South Shore Marina

STA	+	H.I.	−	Elev.
BM-1A				8.33
	3.23	11.56		
TP			4.14	7.42
	6.13	13.55		
TP			8.27	5.28
	5.29	10.57		
RP-A			6.15	4.42
	3.44	7.86		
~~Staff~~ gage			8.65	−0.79 (0-of gage)
	8.60	7.81		
RP-A			3.39	4.42
RP-A				4.42
	6.03	10.45		
TP			5.18	5.27
	8.58	13.85		
TP			6.45	7.40
	4.55	11.95		
1-A			3.64	8.31 F
				8.33 G
				0.02

1-15-06

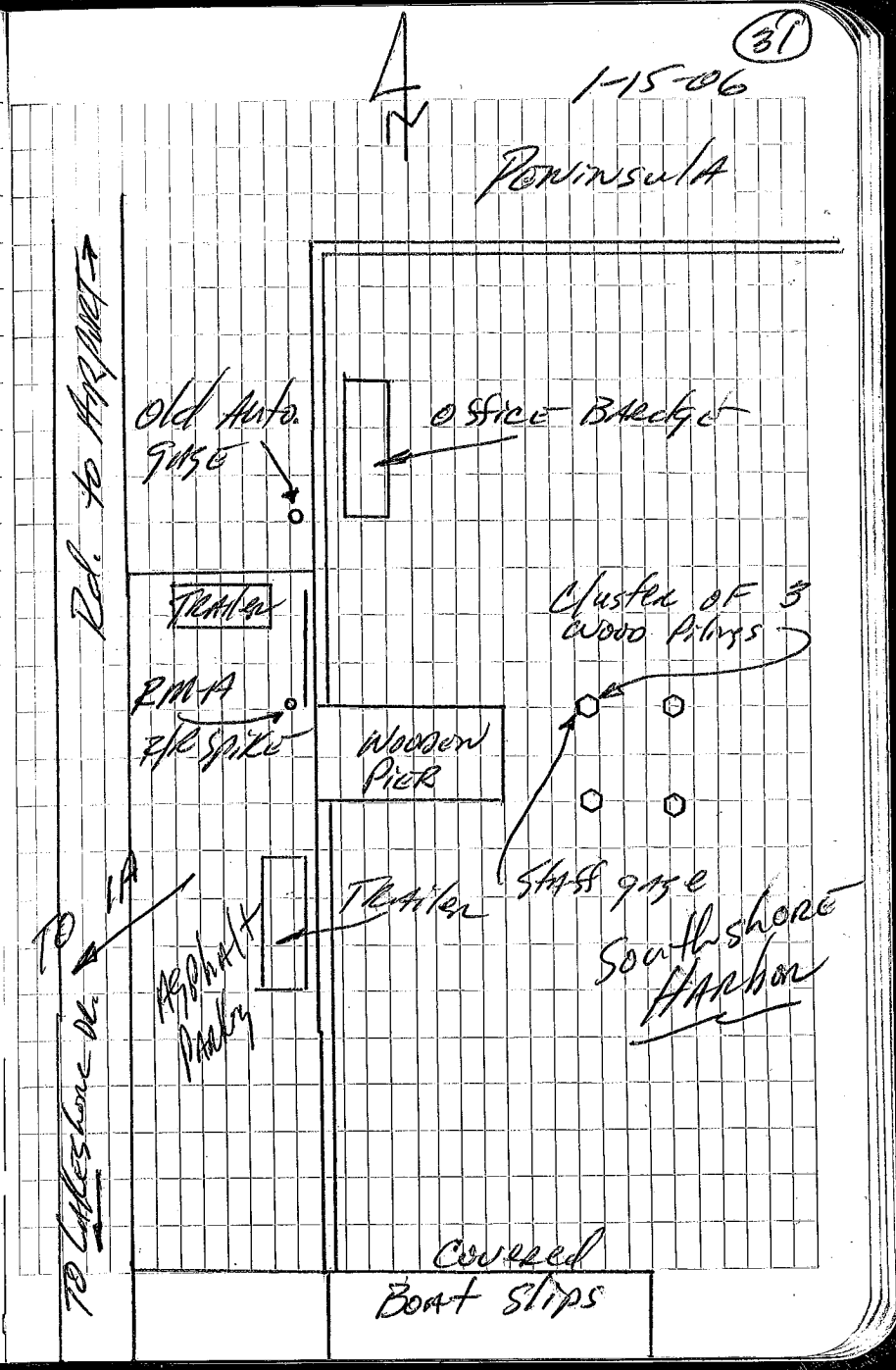
PSD 1394

RP-A is a R/R spike driven flush with the concrete. 1.0' west of the ℄ of the south end of a concrete curb, 8.4' North of the ℄ of a wooden dock leading east. 50' west of gage.

Wooden staff gage set on a cluster of 3 wooden pilings - 50' east of RP-A. Orleans Levee District gage. The shots - 8.65 & 8.60 were actually readings on the gage. 0.00 of the gage is actually −0.79

Sketch

Southshore Marina Gate



TBM-AG07-Miss Lake Gage
9 mile Turnaround-Causeway Bridge
National Weather Service-Miss Lake Gage

STA	+	H.I.	-	Elev.	
AG07				9.04	
	5.06	14.10			
BM-1			5.04	9.06	
	4.92	13.98			
SCREW			2.01	11.97	
	1.92	13.89			
Top PVC Pipe			0.97	12.92	
	0.90	13.82			
AG07			4.78	9.04	F
				9.04	G
				0.00	E

Howard
Rurport
McNeal

8-Feb-06

GPS Elev. 8.004.65

BM-1-chiseled + on west side of 10" PVC Pipe (0.85' west)
screw on side 10" PVC Pipe

Top Cap 10" PVC Pipe-@ slit where wires enter Pipe (S.W. side)

AG07- is A chiseled + on the top of the concrete Road way @ the 9 mile Turnaround of the Causeway Bridge- 69'± S.W of National weather Service Miss Lake Gage, 46'± S.W of S.W. Most of 3 concrete Filled yellow Iron Pipes. 1.8' East of East edge of west curb of 9 mile Turnaround South Bound on Ramp.

APPENDIX I

Phase 1a NOAA Tidal Gage GPS Surveys
(Northern Region)

Phase 1a NOAA Tidal Gage GPS Surveys
(Northern Region)

Fully Constrained GPS Network Results

Coordinate System: US State Plane 1983
Zone: Louisiana South 1702
Datum: NAD 1983
Geoid Model: GEOID03
Units: meters

Point Name	Latitude	Longitude	Northing	Easting	Elev	Ellip Ht
167 A	30°00'24.92174"N	89°56'15.25996"W	167853.820	1134649.122	2.961	-23.410
V 375	29°55'01.55071"N	89°58'18.04219"W	157858.377	1131477.366	0.710	-25.603
ALCO	30°01'36.52294"N	90°06'46.21053"W	169865.289	1117718.598	1.870	-24.540
C 189	30°04'24.49901"N	89°50'25.90011"W	175347.837	1143914.390	0.630	-26.063
DIST	29°55'53.38286"N	90°08'02.35071"W	159279.057	1115789.302	3.265	-22.928
G 365	29°54'39.52075"N	90°12'46.30725"W	156927.889	1108196.737	0.240	-25.911
hamm	30°30'47.05157"N	90°28'03.42872"W	223454.102	1083092.874	34.170	7.815
covg	30°28'33.26966"N	90°05'43.92326"W	219662.521	1118849.594	22.390	-4.302
eng 2	29°52'45.04452"N	89°56'31.48475"W	153690.042	1134386.275	8.630	-17.619
E 3145	30°04'06.73045"N	89°48'13.12962"W	174847.676	1147476.979	4.617	-21.881
PIKE RM 3	30°09'59.48574"N	89°44'15.40419"W	185795.019	1153691.743	2.579	-24.113
REGGIO 2	29°50'40.71915"N	89°45'32.43077"W	150091.312	1152121.263	1.520	-24.734

Datasheets

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30

1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006

AT0760 **********

AT0760 HT_MOD - This is a Louisiana Height Modernization Survey Station.

AT0760 DESIGNATION - V 375

AT0760 PID - AT0760

AT0760 STATE/COUNTY- LA/ORLEANS

AT0760 USGS QUAD - CHALMETTE (1994)

AT0760

AT0760 *CURRENT SURVEY CONTROL

AT0760 _____

AT0760* NAD 83(1992)- 29 55 01.55070(N) 089 58 18.04218(W) ADJUSTED

AT0760* NAVD 88 - 0.71 **(meters) 2.3 **(feet) GPS OBS(2004.65)

AT0760 **This station is located in a subsidence area (see below).

AT0760 _____

AT0760 EPOCH DATE - 2004.65

AT0760 X - 2,734.905 (meters) COMP

AT0760 Y - -5,532,823.275 (meters) COMP

AT0760 Z - 3,162,399.142 (meters) COMP

AT0760 LAPLACE CORR- 0.15 (seconds) DEFLEC99

AT0760 ELLIP HEIGHT- -25.24 (meters) (06/22/05) GPS OBS

AT0760 GEOID HEIGHT- -25.95 (meters) GEOID03

AT0760 DYNAMIC HT - 0.71 (meters) 2.3 (feet) COMP

AT0760 MODELED GRAV- 979,311.5 (mgal) NAVD 88

AT0760

AT0760 HORZ ORDER - B

AT0760 VERT ORDER - FIRST CLASS II (See Below)

AT0760 ELLP ORDER - FOURTH CLASS I

AT0760

AT0760.The horizontal coordinates were established by GPS observations

AT0760.and adjusted by the National Geodetic Survey in June 2005.

AT0760.The horizontal coordinates are valid at the epoch date displayed above.

AT0760.The epoch date for horizontal control is a decimal equivalence

AT0760.of Year/Month/Day.

AT0760

AT0760 ** Due to the variability of land subsidence, the orthometric, ellipsoid,

AT0760 ** and geoid heights are valid at the date of observation. These heights

AT0760 ** must always be validated when used as control.

AT0760 ** The orthometric height was determined by GPS observations using

AT0760 ** precise GPS observation and processing techniques and a new

AT0760 ** realization of GEOID03. It supersedes the leveled height previously

AT0760 ** determined for this station.

AT0760 ** The geoid height was determined by a new realization of GEOID03 for the

AT0760 ** epoch indicated which incorporates improved geoid heights for the

AT0760 ** Southern Louisiana Subsidence area.

AT0760 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).

AT0760.The orthometric height was determined by GPS observations and a

AT0760.high-resolution geoid model using precise GPS observation and

AT0760.processing techniques. It supersedes the leveled height previously

AT0760.determined for this station.

AT0760.WARNING-GPS observations at this control monument resulted in a GPS

AT0760.derived orthometric height which differed from the leveled height by

AT0760.more than one decimeter (0.1 meter).

AT0760.The vertical order pertains to the first NAVD 88 superseded value.

AT0760

AT0760.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AT0760

AT0760.The Laplace correction was computed from DEFLEC99 derived deflections.

AT0760

AT0760.The ellipsoidal height was determined by GPS observations

AT0760.and is referenced to NAD 83.

AT0760
AT0760.The geoid height was determined by GEOID03.
AT0760
AT0760.The dynamic height is computed by dividing the NAVD 88
AT0760.geopotential number by the normal gravity value computed on the
AT0760.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AT0760.degrees latitude (g = 980.6199 gals.).
AT0760
AT0760.The modeled gravity was interpolated from observed gravity values.
AT0760
AT0760; North East Units Scale Factor Converg.
AT0760;SPC LA S - 157,858.377 1,131,477.366 MT 0.99992681 +0 40 51.0
AT0760;UTM 16 - 3,313,312.157 213,085.466 MT 1.00061579 -1 28 59.3
AT0760;UTM 15 - 3,313,455.172 792,385.972 MT 1.00065491 +1 30 41.2
AT0760
AT0760! - Elev Factor x Scale Factor = Combined Factor
AT0760!SPC LA S - 1.00000396 x 0.99992681 = 0.99993077
AT0760!UTM 16 - 1.00000396 x 1.00061579 = 1.00061976
AT0760!UTM 15 - 1.00000396 x 1.00065491 = 1.00065888
AT0760
AT0760 SUPERSEDED SURVEY CONTROL
AT0760
AT0760 NAD 83(1992)- 29 55 01.55098(N) 089 58 18.04288(W) AD( ) B
AT0760 ELLIP H (05/09/05) -25.20 (m) GP( ) 4 2
AT0760 NAD 83(1992)- 29 55 01.55047(N) 089 58 18.04138(W) AD( ) 1
AT0760 ELLIP H (01/21/93) -25.18 (m) GP( ) 4 2
AT0760 NAD 83(1986)- 29 55 01.56676(N) 089 58 18.04032(W) AD( ) 1
AT0760 NAVD 88 (12/05/96) 0.890 (m) 2.92 (f) ADJUSTED 1 2
AT0760 NAVD 88 (02/14/94) 0.873 (m) 2.86 (f) UNKNOWN 1 2
AT0760 NGVD 29 (05/21/91) 0.933 (m) 3.06 (f) ADJUSTED 1 2
AT0760
AT0760.Superseded values are not recommended for survey control.
AT0760.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AT0760.See file dsdata.txt to determine how the superseded data were derived.
AT0760
AT0760_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU1308513312(NAD 83)
AT0760_MARKER: I = METAL ROD
AT0760_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AT0760_SP_SET: STAINLESS STEEL ROD IN SLEEVE
AT0760_STAMPING: V 375 1985
AT0760_MARK LOGO: NGS
AT0760_PROJECTION: PROJECTING 6 CENTIMETERS
AT0760_MAGNETIC: I = MARKER IS A STEEL ROD
AT0760_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AT0760_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AT0760+SATELLITE: SATELLITE OBSERVATIONS - October 08, 2005
AT0760_ROD/PIPE-DEPTH: 25.6 meters
AT0760_SLEEVE-DEPTH : 18.2 meters
AT0760
AT0760 HISTORY - Date Condition Report By
AT0760 HISTORY - 1985 MONUMENTED NGS
AT0760 HISTORY - 19880920 GOOD LADTD
AT0760 HISTORY - 19890124 GOOD
AT0760 HISTORY - 19901025 GOOD NGS
AT0760 HISTORY - 19941202 GOOD NGS
AT0760 HISTORY - 19960205 GOOD NGS
AT0760 HISTORY - 20021119 GOOD 3001
AT0760 HISTORY - 20040414 GOOD JCLS
AT0760 HISTORY - 20040414 GOOD JCLS
AT0760 HISTORY - 20040418 GOOD NGS
AT0760 HISTORY - 20050910 GOOD JCLS
AT0760 HISTORY - 20051008 GOOD NGS

AT0760
AT0760 STATION DESCRIPTION
AT0760
AT0760'DESCRIBED BY NATIONAL GEODETIC SURVEY 1985
AT0760'IN NEW ORLEANS.
AT0760'THE MARK IS ABOVE LEVEL WITH ROAD.
AT0760'IN NEW ORLEANS, ON THE WEST BANK, AT THE SOUTHEAST SIDE OF THE
AT0760'ENTRANCE GATE OF THE ALGIERS LOCKS, LOCATED AT THE SOUTH END OF BLYTHE
AT0760'STREET, 6.85 METERS (22.5 FT) SOUTHEAST OF THE CENTER OF THE ENTRANCE
AT0760'ROAD LEADING TO THE LOCKS, 5.85 METERS (19.2 FT) SOUTH OF THE
AT0760'SOUTHEAST ENTRANCE GATE POST, 3.53 METERS (11.6 FT) WEST OF A CONCRETE
AT0760'LAMP POST. NOTE--ACCESS TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO
AT0760'CAP.
AT0760'THE MARK IS 3.23 METERS W FROM A WITNESS POST
AT0760
AT0760 STATION RECOVERY (1988)
AT0760
AT0760'RECOVERY NOTE BY LA TRANSP AND DEV 1988
AT0760'IN NEW ORLEANS, ON THE WEST BANK , AT THE SOUTHEAST SIDE OF THE
AT0760'ENTRANCE GATE OF THE ALGIERS LOCKS, LOCATED AT THE SOUTH END OF BLYTHE
AT0760'STREET, 6.85 M (22.5 FT) SOUTHEAST OF THE CENTER OF THE ENTRANCE ROAD
AT0760'LEADING TO THE LOCKS, 5.85 M (19.2 FT) SOUTH OF THE SOUTHEAST ENTRANCE
AT0760'GATE POST, 3.53 M (11.6 FT) WEST OF A CONCRETE LAMP POST ABOUT LEVEL
AT0760'WITH THE ROAD AND 3.23 M (10.6 FT) WEST FROM A WITNESS POST.
AT0760'NOTE--ACCESS TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP.
AT0760
AT0760 STATION RECOVERY (1989)
AT0760
AT0760'RECOVERED 1989
AT0760'RECOVERED IN GOOD CONDITION.
AT0760
AT0760 STATION RECOVERY (1990)
AT0760
AT0760'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1990
AT0760'0.5 KM (0.3 MI) SOUTHWESTERLY ALONG BLYTHE STREET FROM ITS JUNCTION
AT0760'WITH PATTERSON ROAD IN ALGIERS, ON THE U.S. ARMY CORPS OF ENGINEERS
AT0760'ALGIERS LOCK PROPERTY, 6.6 M (21.7 FT) NORTHEAST OF AND LEVEL WITH
AT0760'THE CENTER OF THE ALGIERS LOCK ENTRANCE ROAD AND GATE, AND 3.6 M
AT0760'(11.8 FT) SOUTHEAST OF A UTILITY LIGHT POST. NOTE--ACCESS TO DATUM
AT0760'POINT IS HAD THROUGH A 5-INCH LOGO CAP.
AT0760
AT0760 STATION RECOVERY (1994)
AT0760
AT0760'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (GAS)
AT0760'IN ALGIERS, AT 3500 BLYTHE STREET, 109.5 M (359.3 FT) NORTHWEST OF THE
AT0760'NORTHWEST CORNER OF THE U.S. ARMY CORP OF ENGINEERS GENERATOR BUILDING
AT0760'AT 3500 BLYTHE STREET, 6.9 M (22.6 FT) EAST OF AND LEVEL WITH THE
AT0760'STREET CENTER, 5.6 M (18.4 FT) SOUTHEAST OF THE EAST POST OF A GATE,
AT0760'3.3 M (10.8 FT) SOUTH OF A UTILITY POLE, AND 3.1 M (10.2 FT) SOUTH OF
AT0760'A WITNESS POST. NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH
AT0760'LOGO CAP. THE MARK IS ON THE PROPERTY OF THE U.S. ARMY CORP OF
AT0760'ENGINEERS ALGIERS LOCK, 3500 BLYTHE STREET, ALGIERS, LA 70131.
AT0760
AT0760 STATION RECOVERY (1996)
AT0760
AT0760'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1996 (ALG)
AT0760'RECOVERED AS DESCRIBED.
AT0760
AT0760 STATION RECOVERY (2002)
AT0760
AT0760'RECOVERY NOTE BY 3001, INC 2002 (KC)
AT0760'THE STATION IS LOCATED IN NEW ORLEANS, ON WEST BANK, 4.5 MILES NORTH

AT0760'OF BELLE CHASE FERRY, 5.5 MILES SOUTHEAST OF GREATER NEW ORLEANS
AT0760'BRIDGE, OVER MISSISSIPPI RIVER, 0.5 MILES SOUTH OF CHALMETTE FERRY.
AT0760'
AT0760'OWNERSHIP- CORPS OF ENGINEERS
AT0760'
AT0760'TO REACH THE STATION FROM THE INTERSECTION OF GENERAL DE GAULLE AVENUE
AT0760'AND SULLEN ROAD, NEAR THE BRIDGE OVER INTERCOASTAL WATERWAY, GO NORTH
AT0760'ON SULLEN ROAD TO PATTERSON DRIVE (LEVEE ROAD), TURN RIGHT ON
AT0760'PATTERSON DRIVE AND PROCEED EAST ON PATTERSON FOR 0.9 MILES TO BLYTHE
AT0760'ROAD , TURN RIGHT ON BLYTHE AND GO TO GATE ENTRANCE TO LOCKS, PASSING
AT0760'THROUGH GATE AND MARK ON LEFT NEAR GATE.
AT0760'
AT0760'THE STATION IS 22.6 FEET EAST OF CENTERLINE OF ENTRANCE ROAD TO LOCKS,
AT0760'18.3 FEET SOUTHEAST OF THE EAST GATE POST FOR GATE, 107 FEET SOUTH OF
AT0760'A LIGHT POLE, 10 FEET SOUTH OF A WITNESS SIGN. STATION IS A
AT0760'STAINLESS ROD DRIVEN 25.6 METERS AND STAMPED V 375.
AT0760
AT0760 STATION RECOVERY (2004)
AT0760
AT0760'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2004 (FJO)
AT0760'RECOVERED IN GOOD CONDITION.
AT0760
AT0760 STATION RECOVERY (2004)
AT0760
AT0760'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2004
AT0760'RECOVERED IN GOOD CONDITION.
AT0760
AT0760 STATION RECOVERY (2004)
AT0760
AT0760'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AT0760'RECOVERED AS DESCRIBED
AT0760
AT0760 STATION RECOVERY (2005)
AT0760
AT0760'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2005 (MRY)
AT0760'RECOVERED IN GOOD CONDITION.
AT0760
AT0760 STATION RECOVERY (2005)
AT0760
AT0760'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (KLF)
AT0760'RECOVERED AS DESCRIBED.

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
AT0804 **********
AT0804 HT_MOD - This is a Louisiana Height Modernization Survey Station.
AT0804 FBN - This is a Federal Base Network Control Station.
AT0804 DESIGNATION - REGGIO 2
AT0804 PID - AT0804
AT0804 STATE/COUNTY- LA/ST BERNARD
AT0804 USGS QUAD - DELACROIX (1994)
AT0804
AT0804 *CURRENT SURVEY CONTROL
AT0804 _____
AT0804* NAD 83(1992)- 29 50 40.71916(N) 089 45 32.43079(W) ADJUSTED
AT0804* NAVD 88 - 1.52 **(meters) 5.0 **(feet) GPS OBS(2004.65)
AT0804 **This station is located in a subsidence area (see below).
AT0804 _____
AT0804 EPOCH DATE - 2004.65
AT0804 X - 23,288.344 (meters) COMP
AT0804 Y - -5,536,777.168 (meters) COMP
AT0804 Z - 3,155,435.922 (meters) COMP
AT0804 LAPLACE CORR- -0.03 (seconds) DEFLEC99
AT0804 ELLIP HEIGHT- -24.15 (meters) (06/22/05) GPS OBS
AT0804 GEOID HEIGHT- -25.68 (meters) GEOID03
AT0804 OBS GRAVITY - 979,309.8 (mgal) GRAV_OBS
AT0804
AT0804 HORZ ORDER - B
AT0804 ELLP ORDER - FOURTH CLASS I
AT0804
AT0804.The horizontal coordinates were established by GPS observations
AT0804.and adjusted by the National Geodetic Survey in June 2005.
AT0804.The horizontal coordinates are valid at the epoch date displayed above.
AT0804.The epoch date for horizontal control is a decimal equivalence
AT0804.of Year/Month/Day.
AT0804
AT0804 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
AT0804 ** and geoid heights are valid at the date of observation. These heights
AT0804 ** must always be validated when used as control.
AT0804 ** The orthometric height was determined by GPS observations using
AT0804 ** precise GPS observation and processing techniques and a new
AT0804 ** realization of GEOID03. It supersedes the leveled height previously
AT0804 ** determined for this station.
AT0804 ** The geoid height was determined by a new realization of GEOID03 for the
AT0804 ** epoch indicated which incorporates improved geoid heights for the
AT0804 ** Southern Louisiana Subsidence area.
AT0804 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
AT0804.The orthometric height was determined by GPS observations and a
AT0804.high-resolution geoid model using precise GPS observation and
AT0804.processing techniques. It supersedes the leveled height previously
AT0804.determined for this station.
AT0804
AT0804.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AT0804
AT0804.The Laplace correction was computed from DEFLEC99 derived deflections.
AT0804
AT0804.The ellipsoidal height was determined by GPS observations
AT0804.and is referenced to NAD 83.
AT0804
AT0804.The geoid height was determined by GEOID03.
AT0804.The observed gravity was obtained from relative gravimeter ties
AT0804.to the IGSN71 gravity network.
AT0804

AT0804;   North   East   Units Scale Factor Converg.
AT0804;SPC LA S   -   150,091.312 1,152,121.263   MT 0.99992944   +0 47 13.9
AT0804;UTM 16   - 3,304,766.395   233,434.144   MT 1.00047681   -1 22 25.8
AT0804
AT0804!   - Elev Factor x Scale Factor =   Combined Factor
AT0804!SPC LA S   -   1.00000379 x   0.99992944 =   0.99993323
AT0804!UTM 16   -   1.00000379 x   1.00047681 =   1.00048060
AT0804
AT0804   SUPERSEDED SURVEY CONTROL
AT0804
AT0804 NAD 83(1992)- 29 50 40.71916(N)   089 45 32.43101(W) AD(   ) B
AT0804 ELLIP H (12/29/04) -24.13   (m)   GP(   ) 4 1
AT0804 ELLIP H (06/20/00) -24.12   (m)   GP(   ) 3 1
AT0804 ELLIP H (01/21/93) -24.10   (m)   GP(   ) 4 2
AT0804 NAD 83(1992)- 29 50 40.71874(N)   089 45 32.43093(W) AD(   ) A
AT0804 ELLIP H (09/04/92) -24.10   (m)   GP(   ) 3 1
AT0804 NAD 83(1986)- 29 50 40.73696(N)   089 45 32.43028(W) AD(   ) 1
AT0804 NAD 27   - 29 50 39.98989(N)   089 45 32.20535(W) AD(   ) 1
AT0804 NAVD 88 (02/14/94)   1.714 (m)   5.62   (f) READJUSTED 3
AT0804 NGVD 29 (02/23/90)   1.82   (m)   6.0   (f) LEVELING   3
AT0804
AT0804.Superseded values are not recommended for survey control.
AT0804.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AT0804.See file dsdata.txt to determine how the superseded data were derived.
AT0804
AT0804_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU3343404766(NAD 83)
AT0804_MARKER: F = FLANGE-ENCASED ROD
AT0804_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AT0804_SP_SET: STAINLESS STEEL ROD
AT0804_STAMPING: REGGIO 2 1987
AT0804_MARK LOGO: NGS
AT0804_PROJECTION: FLUSH
AT0804_MAGNETIC: N = NO MAGNETIC MATERIAL
AT0804_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AT0804_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AT0804+SATELLITE: SATELLITE OBSERVATIONS - April 19, 2004
AT0804_ROD/PIPE-DEPTH: 20.7 meters
AT0804_SLEEVE-DEPTH : 1 meters
AT0804
AT0804 HISTORY   - Date   Condition   Report By
AT0804 HISTORY   - 1987   MONUMENTED   LADTD
AT0804 HISTORY   - 1988   GOOD   BUN-Y
AT0804 HISTORY   - 19880920 GOOD   LADTD
AT0804 HISTORY   - 19890119 GOOD
AT0804 HISTORY   - 19910903 GOOD   LADTD
AT0804 HISTORY   - 19920316 GOOD
AT0804 HISTORY   - 19920330 GOOD
AT0804 HISTORY   - 19940620 GOOD   LADTD
AT0804 HISTORY   - 19960215 GOOD   NGS
AT0804 HISTORY   - 19980217 GOOD   NGS
AT0804 HISTORY   - 19980311 GOOD   NGS
AT0804 HISTORY   - 20030402 GOOD   3001
AT0804 HISTORY   - 20030820 GOOD   INDIV
AT0804 HISTORY   - 20040419 GOOD   NGS
AT0804
AT0804   STATION DESCRIPTION
AT0804
AT0804'DESCRIBED BY LA TRANSP AND DEV 1987 (TLH)
AT0804'THE STATION IS LOCATED IN THE NORTHEAST END OF REGGIO ON STATE
AT0804'HIGHWAY 46.
AT0804'OWNERSHIP--LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT.
AT0804'

AT0804'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 300 AND 46
AT0804'IN REGGIO GO NORTHWEST FOR 0.46 KM (0.3 MI) ON HIGHWAY 46 TO THE
AT0804'FAR END OF THE BRIDGE AND THE STATION ON THE RIGHT.
AT0804'
AT0804'THE STATION IS A STANDARD VERTICAL DATUM POINT ATTACHED TO A
AT0804'STAINLESS STEEL ROD ACCESSED THROUGH A LOGO CAP
AT0804'STAMPED---REGGIO 2 1987---,
AT0804'7.6 METERS (24.9 FT) NORTHEAST FROM THE CENTER OF THE NORTH BOUND
AT0804'LANES OF THE HIGHWAY,
AT0804'1.1 METERS (5.6 FT) NORTH FROM THE NORTH END OF THE BANNISTER,
AT0804'0.7 METERS (2.3 FT) NORTHEAST FROM A BRIDGE CURB,
AT0804'0.5 METERS (1.6 FT) WEST FROM THE NORTH CORNER OF THE ABUTMENT WING
AT0804'AND
AT0804'1.2 METERS (4 FT) NORTH FROM A FIBERGLASS WITNESS POST.
AT0804
AT0804 STATION RECOVERY (1988)
AT0804
AT0804'RECOVERY NOTE BY BURK AND N-Y 1988
AT0804'0.5 KM (0.30 MI) NW FROM REGGIO.
AT0804'LOCATED 0.48 KM (0.30 MI) NORTHWEST ALONG STATE HIGHWAY 46 FROM THE
AT0804'CROSSROADS AT REGGIO, TO THE WEST END OF THE BRIDGE AND THE MARK ON
AT0804'THE RIGHT. IT IS 7.62 M (25.0 FT) NORTH OF THE CENTERLINE OF THE
AT0804'EAST-BOUND LANE, 1.07 M (3.5 FT) NORTHWEST OF THE NORTHWEST END OF
AT0804'THE BANNISTER, 0.67 M (2.2 FT) NORTHEAST OF THE BRIDGE CURB AND 0.46
AT0804'M (1.5 FT) FROM THE NORTH CORNER OF THE ABUTMENT WING. NOTE--ACCESS
AT0804'TO DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP,
AT0804'(THIS IS A 3-D GPS STATION MARK).
AT0804
AT0804 STATION RECOVERY (1988)
AT0804
AT0804'RECOVERY NOTE BY LA TRANSP AND DEV 1988
AT0804'THE STATION IS LOCATED IN THE NORTHWEST EDGE OF REGGIO ON STATE
AT0804'HIGHWAY 46. OWNERSHIP--LOUISIANA DEPARTMENT OF TRANSPORTATION AND
AT0804'DEVELOPMENT.
AT0804'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 300 AND 46 IN
AT0804'REGGIO GO NORTHWEST FOR 0.46 KM (0.30 MI) ON HIGHWAY 46 TO THE FAR END
AT0804'OF THE BRIDGE AND THE STATION ON THE RIGHT.
AT0804'THE STATION IS A STAINLESS STEEL ROD ACCESSED THROUGH A LOGO CAP, 7.6
AT0804'M (24.9 FT) NORTHEAST FROM THE CENTER OF THE NORTH BOUND LANES OF THE
AT0804'HIGHWAY, 1.1 M (3.6 FT) NORTH FROM THE NORTH END OF THE BANISTER, 0.7
AT0804'M (2.3 FT) NORTHEAST FROM A BRIDGE CURB, 0.5 M (1.6 FT) WEST FROM THE
AT0804'NORTH CORNER OF THE ABUTMENT WING AND 1.2 M (3.9 FT) NORTH FROM A
AT0804'FIBERGLASS WITNESS POST.
AT0804
AT0804 STATION RECOVERY (1989)
AT0804
AT0804'RECOVERED 1989
AT0804'RECOVERED IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (1991)
AT0804
AT0804'RECOVERY NOTE BY LA TRANSP AND DEV 1991
AT0804'THE STATION IS LOCATED IN THE NORTHEAST END OF REGGIO ON STATE HIGHWAY
AT0804'46. OWNERSHIP--LOUISIANA DEPARTMENT OF TRANSPORTATION AND
AT0804'DEVELOPMENT.
AT0804'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 46 AND 300 IN
AT0804'REGGIO, GO NORTHWEST FOR 0.3 MI (0.5 KM) ON HIGHWAY 46 TO THE NORTH
AT0804'END OF A BRIDGE AND THE STATION SET ON THE RIGHT.
AT0804'THE STATION IS 25.0 FT (7.6 M) NORTHEAST FROM THE CENTER OF THE NORTH
AT0804'BOUND LANES OF THE HIGHWAY, 5.5 FT (1.7 M) NORTH FROM THE NORTH END
AT0804'OF THE BANNISTER, 2.0 FT (0.6 M) NORTHEAST FROM A BRIDGE CURB, 1.5 FT
AT0804'(0.5 M) WEST FROM THE NORTH CORNER OF THE NORTH BOUND BRIDGE

AT0804'ABUTMENT, 1.5 FT (0.5 M) NORTHWEST FROM A FIBERGLASS WITNESS POST,
AT0804'FLUSH WITH THE GROUND AND ABOUT LEVEL WITH THE HIGHWAY.
AT0804
AT0804 STATION RECOVERY (1992)
AT0804
AT0804'RECOVERED 1992
AT0804'RECOVERED IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (1992)
AT0804
AT0804'RECOVERED 1992
AT0804'RECOVERED IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (1994)
AT0804
AT0804'RECOVERY NOTE BY LA TRANSP AND DEV 1994 (SLC)
AT0804'RECOVERED AS DESCRIBED.
AT0804
AT0804 STATION RECOVERY (1996)
AT0804
AT0804'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1996 (ALG)
AT0804'RECOVERED AS DESCRIBED.
AT0804
AT0804 STATION RECOVERY (1998)
AT0804
AT0804'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (CSM)
AT0804'RECOVERED AS DESCRIBED. NOTE--THE PREVIOUS DESCRIPTION INCORRECTLY
AT0804'STATES THE ROD HAS NO SLEEVE.
AT0804
AT0804 STATION RECOVERY (1998)
AT0804
AT0804'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (CSM)
AT0804'RECOVERED AS DESCRIBED. NOTE--THE PREVIOUS DESCRIPTION INCORRECTLY
AT0804'STATES THE ROD HAS NO SLEEVE.
AT0804
AT0804 STATION RECOVERY (2003)
AT0804
AT0804'RECOVERY NOTE BY 3001, INC 2003 (MH)
AT0804'THE STATION IS LOCATED NORTHWEST OF REGGIO ON LA HWY 46, 14.09 MILES
AT0804'SOUTHEAST OF INTERSECTION OF LA HWY 47 AND HWY 39 IN CHALMETTE, LA.
AT0804'6.95 MILES EAST SOUTHEAST OF INTERSECTION OF HWY 39 AND HWY 46 IN ST.
AT0804'BERNARD, 4.83 MILES WEST OF THE END OF HWY 46 IN SHELL BEACH.
AT0804'
AT0804'OWNERSHIP- LA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
AT0804'
AT0804'TO REACH THE STATION FROM THE INTERSECTION OF LA HWY 300 AND HWY 46 IN
AT0804'REGGIO HEAD NORTHWEST FOR 0.3 MILES ON HWY 46, TO THE NORTHEAST
AT0804'CORNER OF A BRIDGE AND THE MARK IS ON THE RIGHT.
AT0804'
AT0804'THE STATION IS 25.0 FT. NORTHEAST OF CENTERLINE OF NORTH BOUND LANES
AT0804'OF HWY, 3.6 FT. NORTH FROM NORTH END OF BRIDGE CONCRETE RAIL, 2.1 FT.
AT0804'NORTHEAST OF A CONCRETE CURB, 1.5 FT. NORTHWEST OF A CONCRETE
AT0804'ABUTMENT WING. STATION IS A STAINLESS STEEL ROD ACCESSED THROUGH A
AT0804'LOGO CAP STAMPED- REGGIO2 1987, FLUSH WITH TOP OF LOGO SLEEVE COVER
AT0804'MISSING OTHERWISE IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (2003)
AT0804
AT0804'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2003 (JCJ)
AT0804'RECOVERED IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (2004)

AT0804
AT0804'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AT0804'RECOVERED AS DESCRIBED

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
AU2110 **
AU2110 HT_MOD - This is a Louisiana Height Modernization Survey Station.
AU2110 DESIGNATION - G 365
AU2110 PID - AU2110
AU2110 STATE/COUNTY- LA/JEFFERSON
AU2110 USGS QUAD - NEW ORLEANS WEST (1992)
AU2110
AU2110 *CURRENT SURVEY CONTROL
AU2110 _____
AU2110* NAD 83(1992)- 29 54 39.52074(N) 090 12 46.30724(W) ADJUSTED
AU2110* NAVD 88 - 0.24 **(meters) 0.8 **(feet) GPS OBS(2004.65)
AU2110 **This station is located in a subsidence area (see below).
AU2110 _____
AU2110 EPOCH DATE - 2004.65
AU2110 X - -20,556.547 (meters) COMP
AU2110 Y - -5,533,123.639 (meters) COMP
AU2110 Z - 3,161,810.933 (meters) COMP
AU2110 LAPLACE CORR- -0.08 (seconds) DEFLEC99
AU2110 ELLIP HEIGHT- -25.72 (meters) (06/22/05) GPS OBS
AU2110 GEOID HEIGHT- -25.97 (meters) GEOID03
AU2110 DYNAMIC HT - 0.24 (meters) 0.8 (feet) COMP
AU2110 MODELED GRAV- 979,313.4 (mgal) NAVD 88
AU2110 OBS GRAVITY - 979,310.0 (mgal) GRAV_OBS
AU2110
AU2110 HORZ ORDER - B
AU2110 VERT ORDER - FIRST CLASS II (See Below)
AU2110 ELLP ORDER - FOURTH CLASS I
AU2110
AU2110.The horizontal coordinates were established by GPS observations
AU2110.and adjusted by the National Geodetic Survey in June 2005.
AU2110.The horizontal coordinates are valid at the epoch date displayed above.
AU2110.The epoch date for horizontal control is a decimal equivalence
AU2110.of Year/Month/Day.
AU2110
AU2110 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
AU2110 ** and geoid heights are valid at the date of observation. These heights
AU2110 ** must always be validated when used as control.
AU2110 ** The orthometric height was determined by GPS observations using
AU2110 ** precise GPS observation and processing techniques and a new
AU2110 ** realization of GEOID03. It supersedes the leveled height previously
AU2110 ** determined for this station.
AU2110 ** The geoid height was determined by a new realization of GEOID03 for the
AU2110 ** epoch indicated which incorporates improved geoid heights for the
AU2110 ** Southern Louisiana Subsidence area.
AU2110 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
AU2110.The orthometric height was determined by GPS observations and a
AU2110.high-resolution geoid model using precise GPS observation and
AU2110.processing techniques. It supersedes the leveled height previously
AU2110.determined for this station.
AU2110.The vertical order pertains to the first NAVD 88 superseded value.
AU2110
AU2110.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AU2110
AU2110.The Laplace correction was computed from DEFLEC99 derived deflections.
AU2110
AU2110.The ellipsoidal height was determined by GPS observations
AU2110.and is referenced to NAD 83.
AU2110
AU2110.The geoid height was determined by GEOID03.

AU2110
AU2110.The dynamic height is computed by dividing the NAVD 88
AU2110.geopotential number by the normal gravity value computed on the
AU2110.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AU2110.degrees latitude (g = 980.6199 gals.).
AU2110
AU2110.The modeled gravity was interpolated from observed gravity values.
AU2110.The observed gravity was obtained from relative gravimeter ties
AU2110.to the IGSN71 gravity network.
AU2110
AU2110; North East Units Scale Factor Converg.
AU2110;SPC LA S - 156,927.889 1,108,196.737 MT 0.99992697 +0 33 36.9
AU2110;UTM 15 - 3,312,186.525 769,106.240 MT 1.00049359 +1 23 26.4
AU2110
AU2110! - Elev Factor x Scale Factor = Combined Factor
AU2110!SPC LA S - 1.00000404 x 0.99992697 = 0.99993101
AU2110!UTM 15 - 1.00000404 x 1.00049359 = 1.00049763
AU2110
AU2110 SUPERSEDED SURVEY CONTROL
AU2110
AU2110 NAVD 88 (12/05/96) 0.342 (m) 1.12 (f) ADJUSTED 1 2
AU2110 NAVD 88 (02/14/94) 0.313 (m) 1.03 (f) UNKNOWN 1 2
AU2110 NAVD 88 (06/15/91) 0.371 (m) 1.22 (f) UNKNOWN 1 2
AU2110 NGVD 29 (??/??/??) 0.407 (m) 1.34 (f) ADJUSTED 1 2
AU2110
AU2110.Superseded values are not recommended for survey control.
AU2110.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AU2110.See file dsdata.txt to determine how the superseded data were derived.
AU2110
AU2110_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYP6910612187(NAD 83)
AU2110_MARKER: I = METAL ROD
AU2110_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AU2110_SP_SET: STAINLESS STEEL ROD IN SLEEVE
AU2110_STAMPING: G 365 1984
AU2110_MARK LOGO: NGS
AU2110_PROJECTION: FLUSH
AU2110_MAGNETIC: I = MARKER IS A STEEL ROD
AU2110_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AU2110_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AU2110+SATELLITE: SATELLITE OBSERVATIONS - April 13, 2004
AU2110_ROD/PIPE-DEPTH: 32.9 meters
AU2110_SLEEVE-DEPTH : 9.1 meters
AU2110
AU2110 HISTORY - Date Condition Report By
AU2110 HISTORY - 1984 MONUMENTED NGS
AU2110 HISTORY - 1984 GOOD LA-051
AU2110 HISTORY - 19941122 GOOD NGS
AU2110 HISTORY - 20040413 GOOD NGS
AU2110
AU2110 STATION DESCRIPTION
AU2110
AU2110'DESCRIBED BY NATIONAL GEODETIC SURVEY 1984
AU2110'0.24 KM (0.15 MI) WEST FROM AVONDALE.
AU2110'0.24 KM (0.15 MI) WEST ALONG U.S. HIGHWAY 90 FROM THE JUNCTION OF
AU2110'AVONDALE GARDEN ROAD IN AVONDALE. INSIDE THE ENTRANCE OF THE REST
AU2110'LAWN CEMETARY GROUNDS AND IN THE MIDDLE OF A GRASSY MEDIAN, 3.0 METERS
AU2110'(9.9 FT)NORTH OF THE NORTH FACE OF THE CENTER BRICK PIER OF THE
AU2110'ENTRANCE FENCE, 9.1 METERS (30.0 FT) WEST OF THE CENTER OF A PAVED
AU2110'ENTRANCE ROAD TO THE CEMETARY AND AN IRONGATE, 9.4 METERS (30.7 FT)
AU2110'EAST OF THE CENTER OF A ENTRANCE ROAD AND AN IRONGATE, 4.7 METERS
AU2110'(15.5 FT) SOUTH OF A 4 INCH CEDAR TREE, 24.9 METERS (81.6 FT) SOUTH OF
AU2110'A METAL FLAG POLE, 4.6 METERS (15.2 FT) WEST OF THE WEST FACE OF A 1

AU2110'FOOT HIGH BRICK ENTRANCE FENCE, 5.1 METERS (16.7 FT) EAST OF THE EAST
AU2110'FACE OF A 1 FOOT HIGH ENTRANCE FENCE AND 39.0 METERS (128.0 FT) NORTH
AU2110'OF CENTERLINE OF U.S. HIGHWAY 90 WESTBOUND. NOTE, DRIVEN TO REQUIRED
AU2110'DRIVING RATE.
AU2110'THE MARK IS 0.15 M ABOVE CEMETARY ENTRANCE ROAD..
AU2110
AU2110 STATION RECOVERY (1984)
AU2110
AU2110'RECOVERY NOTE BY JEFFERSON PARISH LOUISIANA 1984
AU2110'RECOVERED IN GOOD CONDITION.
AU2110
AU2110 STATION RECOVERY (1994)
AU2110
AU2110'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (GAS)
AU2110'5.7 KM (3.55 MI) WESTERLY ALONG U.S. HIGHWAY 90 FROM THE TRAFFIC
AU2110'CIRCLE AT THE SOUTH END OF THE HUEY P LONG BRIDGE IN BRIDGE CITY, 40.5
AU2110'M (132.9 FT) NORTH OF THE CENTERLINE OF THE WESTBOUND LANES OF THE
AU2110'HIGHWAY, 12.0 M (39.4 FT) SOUTH OF A FLAG POLE, 9.3 M (30.5 FT) EAST
AU2110'OF THE CENTER OF A ROAD, 9.2 M (30.2 FT) WEST OF THE CENTER OF THE
AU2110'ENTRANCE TO THE REST LAWN CEMETERY, 3.0 M (9.8 FT) NORTH OF THE NORTH
AU2110'FACE OF A BRICK PILLAR IN THE MEDIAN OF THE ENTRANCE, AND 0.5 M (1.6
AU2110'FT) BELOW THE LEVEL OF THE HIGHWAY. NOTE--ACCESS TO THE DATUM POINT
AU2110'IS THROUGH A 5-INCH LOGO CAP.
AU2110
AU2110 STATION RECOVERY (2004)
AU2110
AU2110'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AU2110'5.7 KM (3.55 MI) WEST ALONG US HWY 90 FROM THE HUEY LONG BRIDGE IN
AU2110'BRIDGE CITY, 0.24KM (0.15 MI) WEST ALONG US 90 FROM THE JUNCTION OF
AU2110'AVONDALE GARDEN ROAD IN AVONDALE. THE MARK IS LOCATED INSIDE THE
AU2110'ENTRANCE OF THE REST LAWN CEMENTARY GARDENS IN THE APPROX CENTER OF
AU2110'THE GRASSY MEDIAN. THE MARK IS APPROX. 40 MTR N OF THE WEST BOUND
AU2110'LANES OF US 90, IT 10 FT NORTH OF THE FACE OF THE CENTER BRICK
AU2110'PILLAR, 16 FT ESE OF THE NE CORNER OF THE NW BRICK PILLAR, 17 FT ENE
AU2110'OF THE NE CORNER OF THE SW BRICK PILLAR, 16.6 FT WSW OF THE NW CORNER
AU2110'OF THE NE BRICK PILLAR, 16.7 FT WNW OF OF THE SW BRICK PILLAR, AND
AU2110'39.4 FT S OF THE FLAGPOLE.

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
AU2196 **********
AU2196 HT_MOD - This is a Height Modernization Survey Station.
AU2196 DESIGNATION - DISTRICT 1 A
AU2196 PID - AU2196
AU2196 STATE/COUNTY- LA/ORLEANS
AU2196 USGS QUAD - NEW ORLEANS WEST (1992)
AU2196
AU2196 *CURRENT SURVEY CONTROL
AU2196 _____
AU2196* NAD 83(1992)- 29 55 53.38291(N) 090 08 02.35063(W) ADJUSTED
AU2196* NAVD 88 - 3.41 **(meters) 11.2 **(feet) GPS OBS
AU2196 **This station is located in a subsidence area (see below).
AU2196 _____
AU2196 X - -12,936.651 (meters) COMP
AU2196 Y - -5,532,014.848 (meters) COMP
AU2196 Z - 3,163,783.648 (meters) COMP
AU2196 LAPLACE CORR- 0.03 (seconds) DEFLEC99
AU2196 ELLIP HEIGHT- -22.70 (meters) (12/29/04) GPS OBS
AU2196 GEOID HEIGHT- -26.01 (meters) GEOID03
AU2196 DYNAMIC HT - 3.41 (meters) 11.2 (feet) COMP
AU2196 MODELED GRAV- 979,312.2 (mgal) NAVD 88
AU2196
AU2196 HORZ ORDER - B
AU2196 VERT ORDER - FIRST CLASS II (See Below)
AU2196 ELLP ORDER - FOURTH CLASS I
AU2196
AU2196.The horizontal coordinates were established by GPS observations
AU2196.and adjusted by the National Geodetic Survey in December 2004.
AU2196
AU2196 ** The orthometric height has not been validated since last determined
AU2196 ** by differential leveling and should not be used for control purposes.
AU2196 ** See www.ngs.noaa.gov/heightmod/LouisianaControl.shtml for stations in this
AU2196 ** area with valid NAVD 88 orthometric heights.
AU2196 ** The geoid height was determined by a new realization of GEOID03 for the
AU2196 ** epoch indicated which incorporates improved geoid heights for the
AU2196 ** Southern Louisiana Subsidence area.
AU2196 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
AU2196.The orthometric height was determined by GPS observations and a
AU2196.high-resolution geoid model using precise GPS observation and
AU2196.processing techniques. It supersedes the leveled height previously
AU2196.determined for this station.
AU2196.The vertical order pertains to the first NAVD 88 superseded value.
AU2196
AU2196.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AU2196
AU2196.The Laplace correction was computed from DEFLEC99 derived deflections.
AU2196
AU2196.The ellipsoidal height was determined by GPS observations
AU2196.and is referenced to NAD 83.
AU2196
AU2196.The geoid height was determined by GEOID03.
AU2196
AU2196.The dynamic height is computed by dividing the NAVD 88
AU2196.geopotential number by the normal gravity value computed on the
AU2196.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AU2196.degrees latitude (g = 980.6199 gals.).
AU2196
AU2196.The modeled gravity was interpolated from observed gravity values.
AU2196

AU2196; North East Units Scale Factor Converg.
AU2196;SPC LA S - 159,279.058 1,115,789.304 MT 0.99992647 +0 35 58.9
AU2196;UTM 15 - 3,314,648.999 776,668.392 MT 1.00054452 +1 25 51.4
AU2196
AU2196! - Elev Factor x Scale Factor = Combined Factor
AU2196!SPC LA S - 1.00000357 x 0.99992647 = 0.99993003
AU2196!UTM 15 - 1.00000357 x 1.00054452 = 1.00054809
AU2196
AU2196 SUPERSEDED SURVEY CONTROL
AU2196
AU2196 NAVD 88 (12/05/96) 3.450 (m) 11.32 (f) ADJUSTED 1 2
AU2196 NAVD 88 (02/14/94) 3.435 (m) 11.27 (f) UNKNOWN 1 2
AU2196 NGVD 29 (05/21/91) 3.495 (m) 11.47 (f) ADJUSTED 1 2
AU2196
AU2196.Superseded values are not recommended for survey control.
AU2196.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AU2196.See file dsdata.txt to determine how the superseded data were derived.
AU2196
AU2196_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYP7666814649(NAD 83)
AU2196_MARKER: I = METAL ROD
AU2196_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AU2196_SP_SET: STAINLESS STEEL ROD
AU2196_STAMPING: DISTRICT 1 A
AU2196_MARK LOGO: USE
AU2196_PROJECTION: RECESSED 10 CENTIMETERS
AU2196_MAGNETIC: I = MARKER IS A STEEL ROD
AU2196_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AU2196_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AU2196+SATELLITE: SATELLITE OBSERVATIONS - November 19, 2001
AU2196_ROD/PIPE-DEPTH: 18.2 meters
AU2196
AU2196 HISTORY - Date Condition Report By
AU2196 HISTORY - 1985 MONUMENTED USE
AU2196 HISTORY - 1985 GOOD NGS
AU2196 HISTORY - 19901110 GOOD NGS
AU2196 HISTORY - 19941108 GOOD NGS
AU2196 HISTORY - 20011119 GOOD 3001
AU2196
AU2196 STATION DESCRIPTION
AU2196
AU2196'DESCRIBED BY NATIONAL GEODETIC SURVEY 1985
AU2196'IN NEW ORLEANS.
AU2196'THE MARK IS 0.91 M ABOVE TRACKS.
AU2196'IN NEW ORLEANS, 1.2 KM (0.75 MI) SOUTH ALONG RIVER ROAD FROM THE
AU2196'JUNCTION OF CARROLLTON AVENUE TO THE MARK ON THE RIGHT, AT THE SOUTH
AU2196'END OF THE U.S. ENGINEERS PROPERTY, AT THE TOE OF THE LEVEE,
AU2196'SURROUNDED BY 3 METAL POSTS PAINTED YELLOW, 16.33 METERS (53.6 FT)
AU2196'WEST OF THE WEST RAIL OF THE NEW ORLEANS PUBLIC BELT RAILROAD,
AU2196'12.10 METERS (39.7 FT) SOUTHWEST OF THE SOUTHEAST CORNER POST OF A
AU2196'CHAIN LINK FENCE, 18.59 METERS (61.0 FT) NORTH OF THE NORTH EDGE OF A
AU2196'WALKWAY CROSSING THE LEVEE, 2.22 METERS (7.3 FT) SOUTH OF A CHAIN LINK
AU2196'FENCE.
AU2196
AU2196 STATION RECOVERY (1990)
AU2196
AU2196'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1990
AU2196'0.4 KM (0.2 MI) NORTHERLY ALONG LAKE AVENUE FROM THE INTERSECTION OF
AU2196'MAGAZINE STREET IN NEW ORLEANS, AT THE SOUTH END OF THE U.S. CORP OF
AU2196'ENGINEERS PROPERTY, 43.4 M (142.4 FT) NORTH OF A HIGH LINE TOWER,
AU2196'31.3 M (102.7 FT) WEST OF THE WEST CURB OF THE AVENUE, 16.3 M (53.5
AU2196'FT) WEST OF THE NEAR RAIL OF THE NEW ORLEANS PUBLIC BELT RAILROAD,
AU2196'12.0 M (39.4 FT) WEST-SOUTHWEST OF A CHAIN-LINK FENCE CORNER, 2.0 M

AU2196'(6.6 FT) SOUTHEAST OF THE FENCE, 1.0 M (3.3 FT) ABOVE THE LEVEL OF
AU2196'THE AVENUE, AND NEAR THE CENTER OF 3 METAL POSTS PAINTED YELLOW.
AU2196'NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH LOGO CAP.
AU2196
AU2196 STATION RECOVERY (1994)
AU2196
AU2196'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (GAS)
AU2196'IN NEW ORLEANS, AT 7400 LEAKE AVENUE, 20.8 M (68.2 FT) SOUTHEAST OF
AU2196'THE SOUTHEAST CORNER OF THE U.S. CORPS OF ENGINEERS DISTRICT WAREHOUSE
AU2196'816 AT 7400 LEAKE AVENUE, 18.5 M (60.7 FT) NORTH OF THE NORTH EDGE OF
AU2196'A SIDEWALK LEADING TO THE TOP OF A LEVEE, 11.8 M (38.7 FT) SOUTHWEST
AU2196'OF THE SOUTHWEST CORNER OF A CHAIN-LINK FENCE ENCLOSING THE DISTRICT
AU2196'HEADQUARTERS, 2.1 M (6.9 FT) SOUTH OF A FENCE, 0.15 M (0.49 FT) BELOW
AU2196'THE GROUND SURFACE, AND THE MARK IS NEAR THE CENTER OF 3 CONCRETE
AU2196'FILLED PIPES PROJECTING 3-FEET ABOVE THE GROUND SURFACE. NOTE--ACCESS
AU2196'TO THE DATUM POINT IS THROUGH A 5-INCH LOGO CAP.
AU2196
AU2196 STATION RECOVERY (2001)
AU2196
AU2196'RECOVERY NOTE BY 3001, INC 2001 (KC)
AU2196'THE STATION IS LOCATED IN NEW ORLEANS, 2.4 MILES SOUTHEAST OF THE HUEY
AU2196'P. LONG BRIDGE , 2.85 MILES SOUTH OF HWY 61, 4.4 MILES WEST OF THE
AU2196'GREATER NEW ORLEANS BRIDGE.
AU2196'
AU2196'OWNERSHIP- COE
AU2196'
AU2196'TO REACH THE STATION FROM THE INTERSECTION OF CARROLLTON AVE. AND
AU2196'RIVER ROAD GO SOUTH FOR .75 MILES TO A MARK ON THE RIGHT, WEST AND
AU2196'ACROSS CHAIN LINK FENCE. ALSO STATION IS ACCESSABLE FROM THE SOUTHERN
AU2196'MOST GUARD GATE AT COE ENTRANCE THEN SOUTH ON A SMALL ASPHALT ROAD
AU2196'JUST WEST OF THE RAILROAD TRACKS TO A CHAIN LINK FENCE CORNER ON RIGHT
AU2196'AND THREE YELLOW PIPES SURROUNDING MARK.
AU2196'
AU2196'THE STATION IS 68.2' SOUTHEAST OF THE SOUTHEAST CORNER OF US CORPS
AU2196'DISTRICT WAREHOUSE BUILDING, 60' NORTH OF THE NORTH EDGE OF A
AU2196'SIDEWALK LEADING OVER LEVEE, 38.7' SOUTHWEST OF THE SOUTHWEST CORNER
AU2196'OF A CHAIN LINK FENCE ENCLOSING THE DISTRICT HEADQUATERS, 69' SOUTH
AU2196'OF THE FENCE, .5' BELOW THE SURFACE AND SURROUNDED BY THREE CONCRETE
AU2196'FILLED STEEL PIPES. STATION IS A ROD DRIVEN 18.2 METERS AND STAMPED
AU2196'DISTRICT 1A.

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
BH1119 **********
BH1119 HT_MOD - This is a Louisiana Height Modernization Survey Station.
BH1119 DESIGNATION - C 189
BH1119 PID - BH1119
BH1119 STATE/COUNTY- LA/ORLEANS
BH1119 USGS QUAD - CHEF MENTEUR (1994)
BH1119
BH1119 *CURRENT SURVEY CONTROL
BH1119 _____
BH1119* NAD 83(1992)- 30 04 24.49899(N) 089 50 25.90012(W) ADJUSTED
BH1119* NAVD 88 - 0.63 **(meters) 2.1 **(feet) LEVELING(2004.65)
BH1119 **This station is located in a subsidence area (see below).
BH1119 **This station is included in the VTDP model (see below).
BH1119 _____
BH1119 EPOCH DATE - 2004.65
BH1119 X - 15,375.449 (meters) COMP
BH1119 Y - -5,524,136.168 (meters) COMP
BH1119 Z - 3,177,411.655 (meters) COMP
BH1119 LAPLACE CORR- -0.12 (seconds) DEFLEC99
BH1119 ELLIP HEIGHT- -25.72 (meters) (06/22/05) GPS OBS
BH1119 GEOID HEIGHT- -26.34 (meters) GEOID03
BH1119 DYNAMIC HT - 0.63 (meters) 2.1 (feet) COMP
BH1119 MODELED GRAV- 979,321.3 (mgal) NAVD 88
BH1119
BH1119 HORZ ORDER - B
BH1119 VERT ORDER - THIRD
BH1119 ELLP ORDER - FOURTH CLASS I
BH1119
BH1119.The horizontal coordinates were established by GPS observations
BH1119.and adjusted by the National Geodetic Survey in June 2005.
BH1119.The horizontal coordinates are valid at the epoch date displayed above.
BH1119.The epoch date for horizontal control is a decimal equivalence
BH1119.of Year/Month/Day.
BH1119
BH1119 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
BH1119 ** and geoid heights are valid at the date of observation. These heights
BH1119 ** must always be validated when used as control.
BH1119 ** The orthometric height was determined with a Vertical Time-dependent
BH1119 ** Positioning (VTDP) model and has been validated through GPS observations
BH1119 ** for the epoch indicated (see www.ngs.noaa.gov/heightmod/VTDP.shtml).
BH1119 ** The geoid height was determined by a new realization of GEOID03 for the
BH1119 ** epoch indicated which incorporates improved geoid heights for the
BH1119 ** Southern Louisiana Subsidence area
BH1119 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
BH1119.The orthometric height was determined by differential leveling.
BH1119.The vertical network tie was performed by a horz. field party for horz.
BH1119.obs reductions. Reset procedures were used to establish the elevation.
BH1119
BH1119.The X, Y, and Z were computed from the position and the ellipsoidal ht.
BH1119
BH1119.The Laplace correction was computed from DEFLEC99 derived deflections.
BH1119
BH1119.The ellipsoidal height was determined by GPS observations
BH1119.and is referenced to NAD 83.
BH1119
BH1119.The geoid height was determined by GEOID03.
BH1119
BH1119.The dynamic height is computed by dividing the NAVD 88
BH1119.geopotential number by the normal gravity value computed on the

BH1119.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BH1119.degrees latitude (g = 980.6199 gals.).
BH1119
BH1119.The modeled gravity was interpolated from observed gravity values.
BH1119
BH1119; North East Units Scale Factor Converg.
BH1119;SPC LA S - 175,347.837 1,143,914.390 MT 0.99992654 +0 44 47.1
BH1119;UTM 16 - 3,330,329.700 226,183.461 MT 1.00052512 -1 25 27.5
BH1119
BH1119! - Elev Factor x Scale Factor = Combined Factor
BH1119!SPC LA S - 1.00000404 x 0.99992654 = 0.99993058
BH1119!UTM 16 - 1.00000404 x 1.00052512 = 1.00052916
BH1119
BH1119 SUPERSEDED SURVEY CONTROL
BH1119
BH1119 ELLIP H (01/21/03) -25.68 (m) GP( ) 4 2
BH1119 NAD 83(1992)- 30 04 24.49852(N) 089 50 25.89947(W) AD( ) 1
BH1119 NAD 83(1992)- 30 04 24.49854(N) 089 50 25.89947(W) AD( ) 1
BH1119 ELLIP H (01/21/93) -25.66 (m) GP( ) 4 2
BH1119 NAD 83(1986)- 30 04 24.51432(N) 089 50 25.89678(W) AD( ) 1
BH1119 NAVD 88 (12/05/96) 0.794 (m) 2.60 (f) ADJUSTED 1 1
BH1119 NAVD 88 (02/14/94) 0.789 (m) 2.59 (f) UNKNOWN 1 1
BH1119 NAVD 88 (06/15/91) 0.810 (m) 2.66 (f) UNKNOWN 1 1
BH1119 NGVD 29 (05/21/91) 0.851 (m) 2.79 (f) ADJUSTED 1 1
BH1119
BH1119.Superseded values are not recommended for survey control.
BH1119.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BH1119.See file dsdata.txt to determine how the superseded data were derived.
BH1119
BH1119_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU2618330330(NAD 83)
BH1119_MARKER: DB = BENCH MARK DISK
BH1119_SETTING: 46 = COPPER-CLAD STEEL ROD W/O SLEEVE (10 FT.+)
BH1119_SP_SET: COPPER-CLAD STEEL ROD
BH1119_STAMPING: C 189 1963
BH1119_MARK LOGO: CGS
BH1119_PROJECTION: FLUSH
BH1119_MAGNETIC: I = MARKER IS A STEEL ROD
BH1119_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
BH1119_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BH1119+SATELLITE: SATELLITE OBSERVATIONS - April 13, 2004
BH1119_ROD/PIPE-DEPTH: 20.7 meters
BH1119_SLEEVE-DEPTH : 1 meters
BH1119
BH1119 HISTORY - Date Condition Report By
BH1119 HISTORY - 1963 MONUMENTED CGS
BH1119 HISTORY - 1969 GOOD CGS
BH1119 HISTORY - 1970 GOOD NGS
BH1119 HISTORY - 1977 GOOD NGS
BH1119 HISTORY - 1978 GOOD USE
BH1119 HISTORY - 1985 GOOD NGS
BH1119 HISTORY - 1986 GOOD NGS
BH1119 HISTORY - 19880920 GOOD LADTD
BH1119 HISTORY - 19890123 GOOD
BH1119 HISTORY - 19901101 GOOD NGS
BH1119 HISTORY - 19941024 GOOD NGS
BH1119 HISTORY - 20020703 GOOD USACE
BH1119 HISTORY - 20040413 GOOD NGS
BH1119
BH1119 STATION DESCRIPTION
BH1119
BH1119'DESCRIBED BY COAST AND GEODETIC SURVEY 1969
BH1119'12.0 MI E FROM NEW ORLEANS.

BH1119'ABOUT 12.0 MILES EAST ALONG U. S. HIGHWAY 90 FROM THE I 10 OVERPASS
BH1119'OVER U. S. HIGHWAY 90 AT NEW ORLEANS, ABOUT 0.1 MILE NORTHWEST OF A
BH1119'LARGE METAL BUILDING FOR THE MARINE CENTER EAST, 58.7 FEET NORTHWEST
BH1119'OF THE SOUTH CORNER OF THE CHAIN LINK FENCE AROUND THE STORAGE YARD OF
BH1119'THE P. HUTCHISON DRAGLINE WORKS, 44 FEET NORTHEAST OF THE CENTER LINE
BH1119'OF THE WESTBOUND LANE OF THE HIGHWAY, 6 FEET EAST OF A 12-INCH OAK
BH1119'TREE, 0.9 FOOT SOUTHWEST OF FENCE LINE, 1.5 FEET NORTHWEST OF A METAL
BH1119'WITNESS POST, ABOUT LEVEL WITH THE HIGHWAY AND IS A DISK ON THE TOP OF
BH1119'A COPPER COATED STEEL ROD FLUSH WITH THE GROUND AND PROTECTED BY A 6
BH1119'INCH TILE WHICH IS FLUSH WITH THE GROUND. THE ROD WAS DRIVEN TO A
BH1119'DEPTH OF 88 FEET.
BH1119
BH1119 STATION RECOVERY (1970)
BH1119
BH1119'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
BH1119'RECOVERED IN GOOD CONDITION.
BH1119
BH1119 STATION RECOVERY (1977)
BH1119
BH1119'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1977
BH1119'12.0 MILES EAST ALONG U.S. HIGHWAY 90 FROM THE INTERSTATE HIGHWAY
BH1119'10 OVERPASS, 0.1 MILE NORTHWEST OF A LARGE METAL BUILDING FOR
BH1119'HALTER MARINE SERVICES INCORPORATED, 44 FT. NORTHEAST OF THE CENTER
BH1119'LINE OF THE WEST BOUND LANES OF THE HIGHWAY, 59 FT. NORTHWEST
BH1119'OF THE SOUTH CORNER OF A STEEL MESH FENCE, 58.5 FT. SOUTHEAST OF
BH1119'THE APPROXIMATE CENTER LINE OF A SHELL DRIVEWAY LEADING NORTHEAST,
BH1119'6 FT. EAST OF A 12-INCH OAK TREE, 0.9 FT. SOUTHWEST OF A
BH1119'NORTHWEST-SOUTHEAST FENCE LINE, THE DISK IS PROTECTED BY A
BH1119'6-INCH SQUARE TILE.
BH1119
BH1119 STATION RECOVERY (1978)
BH1119
BH1119'RECOVERY NOTE BY US ENGINEERS 1978
BH1119'RECOVERED IN GOOD CONDITION.
BH1119
BH1119 STATION RECOVERY (1985)
BH1119
BH1119'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1985
BH1119'RECOVERED IN GOOD CONDITION.
BH1119
BH1119 STATION RECOVERY (1986)
BH1119
BH1119'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986
BH1119'RECOVERED IN GOOD CONDITION.
BH1119
BH1119 STATION RECOVERY (1988)
BH1119
BH1119'RECOVERY NOTE BY LA TRANSP AND DEV 1988
BH1119'ABOUT 19.3 KM (12.00 MI) EAST ALONG U.S. HIGHWAY 90 FROM THE
BH1119'INTERSTATE HIGHWAY 10 OVERPASS OVER U.S. HIGHWAY 90 AT NEW ORLEANS,
BH1119'ABOUT 0.2 KM (0.10 MI) NORTHWEST OF A LARGE METAL BUILDING FOR THE
BH1119'MARINE CENTER EAST, 17.9 M (58.7 FT) NORTHWEST OF THE SOUTH CORNER OF
BH1119'THE CHAIN LINK FENCE AROUND THE STORAGE YARD OF THE P. HUTCHINSON
BH1119'DRAGLINE WORKS, 13.4 M (44.0 FT) NORTHEAST OF THE CENTER LINE OF THE
BH1119'WESTBOUND LANE OF THE HIGHWAY, 6.7 M (22.0 FT) SOUTHEAST FROM THE
BH1119'CENTER OF A CHAIN LINK GATE, 0.3 M (1.0 FT) SOUTHWEST OF THE FENCE AND
BH1119'0.5 M (1.6 FT) NORTHWEST OF A METAL WITNESS POST. THE MARK IS ABOUT
BH1119'LEVEL WITH THE HIGHWAY AND PROTECTED BY A 6-INCH TILE WHICH IS FLUSH
BH1119'WITH THE GROUND.
BH1119
BH1119 STATION RECOVERY (1989)
BH1119

BH1119'RECOVERED 1989
BH1119'RECOVERED IN GOOD CONDITION.
BH1119
BH1119 STATION RECOVERY (1990)
BH1119
BH1119'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1990
BH1119'19.3 KM (12.0 MI) EASTERLY ALONG U.S. HIGHWAY 90 (CHEF MENTEUR
BH1119'HIGHWAY) FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 IN NEW ORLEANS,
BH1119'0.2 KM (0.1 MI) NORTHWEST OF A LARGE METAL BUILDING (VACANT 1990),
BH1119'18.0 M (59.1 FT) NORTHWEST OF THE SOUTH CORNER OF STEEL MESH FENCE,
BH1119'17.8 M (58.4 FT) SOUTHEAST OF THE CENTER OF A SHELLED DRIVEWAY, 13.4
BH1119'M (44.0 FT) NORTHEAST OF THE CENTERLINE OF THE WESTBOUND LANES OF THE
BH1119'HIGHWAY, 0.4 M (1.3 FT) NORTHWEST OF A WITNESS POST, AND 0.3 M (1.0
BH1119'FT) SOUTHWEST OF A FENCE. NOTE--THE DISK IS ENCASED IN A 6-INCH
BH1119'SQUARE PIPE THAT IS FLUSH WITH THE GROUND SURFACE.
BH1119
BH1119 STATION RECOVERY (1994)
BH1119
BH1119'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (GAS)
BH1119'19.1 KM (11.85 MI) EASTERLY ALONG U.S. HIGHWAY 90 (CHEF MENTEUR
BH1119'HIGHWAY) FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 IN NEW ORLEANS,
BH1119'18.0 M (59.1 FT) NORTHWEST OF THE SOUTH CORNER OF A CHAIN-LINK FENCE,
BH1119'17.8 M (58.4 FT) SOUTHEAST OF THE CENTER OF A SHELLED DRIVEWAY, 13.4 M
BH1119'(44.0 FT) NORTHEAST OF AND LEVEL WITH THE CENTERLINE OF THE WESTBOUND
BH1119'LANES OF THE HIGHWAY, 1.5 M (4.9 FT) NORTHEAST OF THE CENTER OF A
BH1119'WATER METER COVER, 0.4 M (1.3 FT) NORTHWEST OF A WITNESS POST, AND 0.3
BH1119'M (1.0 FT) SOUTHWEST OF A FENCE. NOTE--THE DISK IS ENCASED IN A
BH1119'6-INCH METAL PIPE AND IS RECESSED 0.1 M (0.3 FT) BELOW THE GROUND
BH1119'SURFACE.
BH1119
BH1119 STATION RECOVERY (2002)
BH1119
BH1119'RECOVERY NOTE BY US ARMY CORPS OF ENGINEERS 2002 (MWH)
BH1119'SOME OBSTRUCTIONS BUT IS MARGINALLY SUITABLE FOR GPS OBSERVATIONS.
BH1119
BH1119 STATION RECOVERY (2004)
BH1119
BH1119'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
BH1119'THE STATION IS LOCATED EAST OF NEW ORLEANS ALONG US HIGHWAY 90 ABOUT 7
BH1119'MILES EAST OF MICHOUD.
BH1119'
BH1119'TO REACH THE STATION FROM EXIT 246, INTERSTATE HIGHWAY 10 AND
BH1119'INTERSTATE HIGHWAY 510 NORTHEAST OF NEW ORLEANS, GO SOUTH FOR 2.0 MI
BH1119'ON INTERSTATE HIGHWAYT 510 THE US HIGHWAY 90 EXIT (EXIT 2C), TAKE
BH1119'THE EXIT TO A TRAFFIC LIGHT. TURN LEFT, AND GO EASTERLY ON US 90,
BH1119'CHEF MENTEUR HWY, FOR 6.25 MI TO THEJUNCTION WITH US 11, CONTINUE
BH1119'EASTERLY ON US HIGHWAY 90 FOR 1.45 MI. TO THE MARK ON THE LEFT ALONG
BH1119'A FENCELINE.
BH1119'
BH1119'THE MARK IS LOCATED 1FT ENE OF THE WITNESS POST,0.9 FT NE OF A 5 FOOT
BH1119'FENCE, 5.3 FT NNE OF A 12 INCH DIAMETER WATER METER COVER, 11 S OF AN
BH1119'ELECTRIC SERVICE POLE, 55 FT NE OF THE CENTERLINE OF US 90, AND 115
BH1119'ESE OF MILE MARKER 287. NOTE--THE MARK IS ENCASED IN A 6 INCH PIPE
BH1119'RECESSED 0.3 FEET BELOW THE LEVEL OF THE GROUND IN AN AREA INUNDATED
BH1119'WITH WATER AFTER HEAVEY RAINS.

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
BH1133 **********
BH1133 TIDAL BM - This is a Tidal Bench Mark.
BH1133 DESIGNATION - E 3145
BH1133 PID - BH1133
BH1133 STATE/COUNTY- LA/ORLEANS
BH1133 USGS QUAD - CHEF MENTEUR (1994)
BH1133
BH1133 *CURRENT SURVEY CONTROL
BH1133 _____
BH1133* NAD 83(1986)- 30 04 07. (N) 089 48 13. (W) SCALED
BH1133* NAVD 88 - 4.987**(meters) 16.36 **(feet) ADJUSTED
BH1133 **This station is located in a subsidence area (see below).
BH1133 _____
BH1133 GEOID HEIGHT- -26.33 (meters) GEOID03
BH1133 DYNAMIC HT - 4.981 (meters) 16.34 (feet) COMP
BH1133 MODELED GRAV- 979,321.3 (mgal) NAVD 88
BH1133
BH1133 VERT ORDER - FIRST CLASS I
BH1133
BH1133.The horizontal coordinates were scaled from a topographic map and have
BH1133.an estimated accuracy of +/- 6 seconds.
BH1133
BH1133 ** The orthometric height has not been validated since last determined
BH1133 ** by differential leveling and should not be used for control purposes.
BH1133 ** See www.ngs.noaa.gov/heightmod/LouisianaControl.shtml for stations in this
BH1133 ** area with valid NAVD 88 orthometric heights.
BH1133 ** The geoid height was determined by a new realization of GEOID03 for the
BH1133 ** epoch indicated which incorporates improved geoid heights for the
BH1133 ** Southern Louisiana Subsidence area.
BH1133 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
BH1133.The orthometric height was determined by differential leveling
BH1133.and adjusted by the National Geodetic Survey in December 1996.
BH1133
BH1133.This Tidal Bench Mark is designated as VM 7175
BH1133.by the Center for Operational Oceanographic Products and Services.
BH1133
BH1133.The geoid height was determined by GEOID03.
BH1133
BH1133.The dynamic height is computed by dividing the NAVD 88
BH1133.geopotential number by the normal gravity value computed on the
BH1133.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BH1133.degrees latitude (g = 980.6199 gals.).
BH1133
BH1133.The modeled gravity was interpolated from observed gravity values.
BH1133
BH1133; North East Units Estimated Accuracy
BH1133;SPC LA S - 174,860. 1,147,480. MT (+/- 180 meters Scaled)
BH1133
BH1133 SUPERSEDED SURVEY CONTROL
BH1133
BH1133 NAVD 88 (02/14/94) 4.976 (m) 16.33 (f) UNKNOWN 1 1
BH1133 NAVD 88 (06/15/91) 4.996 (m) 16.39 (f) UNKNOWN 1 1
BH1133 NGVD 29 (05/21/91) 5.038 (m) 16.53 (f) ADJUSTED 1 1
BH1133
BH1133.Superseded values are not recommended for survey control.
BH1133.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BH1133.See file dsdata.txt to determine how the superseded data were derived.
BH1133
BH1133_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU297297(NAD 83)

BH1133_MARKER: DD = SURVEY DISK
BH1133_SETTING: 35 = SET IN A MAT FOUNDATION OR CONCRETE SLAB OTHER THAN
BH1133+WITH SETTING: PAVEMENT
BH1133_SP_SET: BRIDGE DECK
BH1133_STAMPING: E 3145
BH1133_MARK LOGO: LAGS
BH1133_MAGNETIC: N = NO MAGNETIC MATERIAL
BH1133_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
BH1133+STABILITY: SURFACE MOTION
BH1133_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
BH1133+SATELLITE: SATELLITE OBSERVATIONS - October 24, 1994
BH1133
BH1133 HISTORY - Date Condition Report By
BH1133 HISTORY - UNK MONUMENTED LAGS
BH1133 HISTORY - 1969 GOOD CGS
BH1133 HISTORY - 1970 GOOD NGS
BH1133 HISTORY - 1977 GOOD NGS
BH1133 HISTORY - 1981 GOOD USGS
BH1133 HISTORY - 1985 GOOD NGS
BH1133 HISTORY - 1986 MARK NOT FOUND NGS
BH1133 HISTORY - 19901019 GOOD NGS
BH1133 HISTORY - 19941024 GOOD NGS
BH1133
BH1133 STATION DESCRIPTION
BH1133
BH1133'DESCRIBED BY COAST AND GEODETIC SURVEY 1969
BH1133'14.65 MI E FROM NEW ORLEANS.
BH1133'ABOUT 14.65 MILES EAST ALONG U. S. HIGHWAY 90 FROM THE I 10 OVERPASS
BH1133'OVER U. S. HIGHWAY 90 AT NEW ORLEANS, AT THE NORTHEAST END OF THE
BH1133'HIGHWAY BRIDGE OVER CHEF MENTEUR PASS, SET IN THE CONCRETE BRIDGE
BH1133'FLOOR, 247 FEET SOUTHWEST OF THE NORTHEAST END OF THE BRIDGE, 2.5 FEET
BH1133'NORTHEAST OF THE NORTHEAST END OF THE STEEL SPAN OF THE BRIDGE, 9 FEET
BH1133'NORTHWEST OF THE CENTER LINE OF THE BRIDGE AND 0.5 FOOT SOUTHEAST OF
BH1133'THE SOUTHEAST FACE OF THE NORTHWEST GUARD RAIL BASE.
BH1133
BH1133 STATION RECOVERY (1970)
BH1133
BH1133'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
BH1133'RECOVERED IN GOOD CONDITION.
BH1133
BH1133 STATION RECOVERY (1977)
BH1133
BH1133'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1977
BH1133'RECOVERED IN GOOD CONDITION.
BH1133
BH1133 STATION RECOVERY (1981)
BH1133
BH1133'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1981
BH1133'RECOVERED IN GOOD CONDITION.
BH1133
BH1133 STATION RECOVERY (1985)
BH1133
BH1133'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1985
BH1133'RECOVERED IN GOOD CONDITION.
BH1133
BH1133 STATION RECOVERY (1986)
BH1133
BH1133'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986
BH1133'NOT RECOVERED, AFTER A THOROUGH SEARCH WAS MADE NO EVIDENCE OF THE
BH1133'MARK WAS FOUND.
BH1133
BH1133 STATION RECOVERY (1990)

BH1133
BH1133'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1990
BH1133'23.6 KM (14.7 MI) EASTERLY ALONG U.S. HIGHWAY 90 (CHEF MENTEUR
BH1133'HIGHWAY) FROM THE JUNCTION OF INTERSTATE HIGHWAY IN NEW ORLEANS, IN
BH1133'THE CONCRETE BRIDGE DECK AT THE NORTHEAST END OF THE HIGHWAY BRIDGE
BH1133'SPANNING CHEF MENTEUR PASS, 75.3 M (247.0 FT) SOUTHWEST OF THE
BH1133'NORTHEAST END OF THE BRIDGE, 2.7 M (8.9 FT) NORTHWEST OF THE
BH1133'CENTERLINE OF THE HIGHWAY, 0.8 M (2.6 FT) NORTHEAST OF THE NORTHEAST
BH1133'END OF THE STEEL SPAN OF THE BRIDGE, AND 0.15 M (0.49 FT) SOUTHEAST
BH1133'OF THE SOUTHEAST FACE OF THE NORTHWEST BRIDGE RAIL.
BH1133
BH1133 STATION RECOVERY (1994)
BH1133
BH1133'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (GAS)
BH1133'23.0 KM (14.30 MI) EASTERLY ALONG U.S. HIGHWAY 90 (CHEF MENTEUR
BH1133'HIGHWAY) FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 IN NEW ORLEANS, IN
BH1133'THE CONCRETE DECK OF THE HIGHWAY BRIDGE SPANNING CHEF MENTEUR PASS,
BH1133'75.3 M (247.0 FT) SOUTHWEST OF THE NORTHEAST END OF THE BRIDGE, 2.7 M
BH1133'(8.9 FT) NORTHWEST OF AND LEVEL WITH THE HIGHWAY CENTERLINE, 0.8 M
BH1133'(2.6 FT) NORTHEAST OF THE NORTHEAST END OF THE STEEL SPAN OF THE
BH1133'BRIDGE, AND 0.1 M (0.3 FT) SOUTHEAST OF THE SOUTHEAST EDGE OF THE
BH1133'NORTHWEST BRIDGE RAIL.

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
BH1160 ***
BH1160 TIDAL BM - This is a Tidal Bench Mark.
BH1160 DESIGNATION - PIKE RM 3
BH1160 PID - BH1160
BH1160 STATE/COUNTY- LA/ORLEANS
BH1160 USGS QUAD - RIGOLETS (1993)
BH1160
BH1160 *CURRENT SURVEY CONTROL
BH1160 _____
BH1160* NAD 83(1992)- 30 09 59.48574(N) 089 44 15.40419(W) ADJUSTED
BH1160* NAVD 88 - 3. **(meters) 10. **(feet) SCALED
BH1160 **This station is located in a subsidence area (see below).
BH1160 _____
BH1160 LAPLACE CORR- -0.37 (seconds) DEFLEC99
BH1160 GEOID HEIGHT- -26.57 (meters) GEOID03
BH1160 DYNAMIC HT - 2.9 (meters) 10. (feet) COMP
BH1160 MODELED GRAV- 979,331.2 (mgal) NAVD 88
BH1160 OBS GRAVITY - 979,332.1 (mgal) GRAV_OBS
BH1160
BH1160 HORZ ORDER - SECOND
BH1160 VERT ORDER - FIRST CLASS I (See Below)
BH1160
BH1160.The horizontal coordinates were established by classical geodetic methods
BH1160.and adjusted by the National Geodetic Survey in May 1994.
BH1160
BH1160 ** The orthometric height has not been validated since last determined
BH1160 ** by differential leveling and should not be used for control purposes.
BH1160 ** See www.ngs.noaa.gov/heightmod/LouisianaControl.shtml for stations in this
BH1160 ** area with valid NAVD 88 orthometric heights.
BH1160 ** The geoid height was determined by a new realization of GEOID03 for the
BH1160 ** epoch indicated which incorporates improved geoid heights for the
BH1160 ** Southern Louisiana Subsidence area.
BH1160 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
BH1160.The orthometric height was scaled from a topographic map.
BH1160.The vertical order pertains to the first NAVD 88 superseded value.
BH1160
BH1160.This Tidal Bench Mark is designated as VM 7156
BH1160.by the Center for Operational Oceanographic Products and Services.
BH1160
BH1160.The Laplace correction was computed from DEFLEC99 derived deflections.
BH1160
BH1160.The geoid height was determined by GEOID03.
BH1160
BH1160.The dynamic height is computed by dividing the NAVD 88
BH1160.geopotential number by the normal gravity value computed on the
BH1160.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BH1160.degrees latitude (g = 980.6199 gals.).
BH1160
BH1160.The modeled gravity was interpolated from observed gravity values.
BH1160.The observed gravity was obtained from relative gravimeter ties
BH1160.to the IGSN71 gravity network.
BH1160
BH1160; North East Units Scale Factor Converg.
BH1160;SPC LA S - 185,795.019 1,153,691.743 MT 0.99992991 +0 47 52.4
BH1160;SPC MS E - 74,225.655 212,898.079 MT 1.00004357 -0 27 16.0
BH1160;UTM 16 - 3,340,404.389 236,355.559 MT 1.00045763 -1 22 35.3
BH1160
BH1160! - Elev Factor x Scale Factor = Combined Factor
BH1160!SPC LA S - 1.00000371 x 0.99992991 = 0.99993362

BH1160!SPC MS E - 1.00000371 x 1.00004357 = 1.00004728
BH1160!UTM 16 - 1.00000371 x 1.00045763 = 1.00046134
BH1160
BH1160 SUPERSEDED SURVEY CONTROL
BH1160
BH1160 NAD 83(1992)- 30 09 59.48860(N) 089 44 15.40340(W) AD( ) 2
BH1160 NAD 83(1986)- 30 09 59.49961(N) 089 44 15.40082(W) AD( ) 2
BH1160 NAD 27 - 30 09 58.79300(N) 089 44 15.18100(W) AD( ) 2
BH1160 NAVD 88 (02/14/94) 2.930 (m) 9.61 (f) UNKNOWN 1 1
BH1160 NAVD 88 (06/15/91) 2.938 (m) 9.64 (f) UNKNOWN 1 1
BH1160 NGVD 29 (05/21/91) 2.993 (m) 9.82 (f) ADJUSTED 1 1
BH1160
BH1160.Superseded values are not recommended for survey control.
BH1160.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BH1160.See file dsdata.txt to determine how the superseded data were derived.
BH1160
BH1160_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU3635640404(NAD 83)
BH1160_MARKER: DR = REFERENCE MARK DISK
BH1160_SETTING: 35 = SET IN A MAT FOUNDATION OR CONCRETE SLAB OTHER THAN
BH1160+WITH SETTING: PAVEMENT
BH1160_SP_SET: PAD
BH1160_STAMPING: PIKE NO 3 1952
BH1160_MARK LOGO: CGS
BH1160_MAGNETIC: N = NO MAGNETIC MATERIAL
BH1160_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
BH1160+STABILITY: SURFACE MOTION
BH1160_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
BH1160+SATELLITE: SATELLITE OBSERVATIONS - October 18, 1994
BH1160
BH1160 HISTORY - Date Condition Report By
BH1160 HISTORY - 1952 MONUMENTED CGS
BH1160 HISTORY - 1954 GOOD CGS
BH1160 HISTORY - 1963 GOOD CGS
BH1160 HISTORY - 1969 GOOD CGS
BH1160 HISTORY - 1970 GOOD NGS
BH1160 HISTORY - 1977 GOOD NGS
BH1160 HISTORY - 1980 GOOD LADTD
BH1160 HISTORY - 1984 GOOD LA-051
BH1160 HISTORY - 1985 GOOD NGS
BH1160 HISTORY - 1986 GOOD NGS
BH1160 HISTORY - 19901022 GOOD NGS
BH1160 HISTORY - 19930317 GOOD NGS
BH1160 HISTORY - 19941018 GOOD NGS
BH1160
BH1160 STATION DESCRIPTION
BH1160
BH1160'DESCRIBED BY COAST AND GEODETIC SURVEY 1952 (PLB)
BH1160'THE STATION IS LOCATED ABOUT 8 MILES SE. OF SLIDELL NEAR THE S. END
BH1160'OF THE NEW RIGOLETS BRIDGE ON U.S. HIGHWAY 90 ON THE LAWN OF THE OLD
BH1160'FORT PIKE AND BETWEEN THE MOAT OF THE FORT AND THE HIGHWAY. A
BH1160'STANDARD CAA 36 INCH ROTATING AIRWAY BEACON FLASHING RED AND
BH1160'WHITE, MOUNTED ON A STEEL FRAME TOWER AND ABOUT 70 FEET HIGH.
BH1160'
BH1160'PIKE RM NO. 3 1952 WAS ESTABLISHED IN THE CONCRETE FOUNDATION OF THE
BH1160'BEACON, DIRECTLY UNDER THE BEACON LIGHT.
BH1160'
BH1160'THE BEACON IS CALLED NEW ORLEANS-ATLANTA AIRWAY BEACON NO. 2.
BH1160
BH1160 STATION RECOVERY (1954)
BH1160
BH1160'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1954 (RAE)
BH1160'THE ORIGINAL DESCRIPTION IS ADEQUATE.

BH1160
BH1160 STATION RECOVERY (1963)
BH1160
BH1160'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1963 (RRG)
BH1160'THE STEEL TOWER SUPPORTING THE BEACON LIGHT OVER R.M. 3 FOR PIKE HAS
BH1160'BEEN TORN DOWN BUT THE CONCRETE BASE REMAINS AND THE MARK HAS NOT
BH1160'BEEN DISTURBED.
BH1160
BH1160 STATION RECOVERY (1969)
BH1160
BH1160'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1969
BH1160'23.2 MI E FROM NEW ORLEANS.
BH1160'ABOUT 23.2 MILES EAST ALONG U. S. HIGHWAY 90 FROM THE I 10 OVERPASS
BH1160'OVER U. S. HIGHWAY 90 AT NEW ORLEANS, AT OLD FORT PIKE, 67.5 FEET WEST
BH1160'OF THE STATION MARK, SET ON THE TOP AND ABOUT IN THE CENTER OF A 13
BH1160'1/2 FOOT SQUARE CONCRETE BLOCK WHICH FORMERLY SUPPORTED A BEACON
BH1160'LIGHT, 113 FEET SOUTHEAST OF THE CENTER LINE OF THE HIGHWAY, 83 FEET
BH1160'SOUTH OF BENCH MARK C 193 DESCRIBED AND ABOUT LEVEL WITH THE HIGHWAY.
BH1160
BH1160 STATION RECOVERY (1970)
BH1160
BH1160'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
BH1160'RECOVERED IN GOOD CONDITION.
BH1160
BH1160 STATION RECOVERY (1977)
BH1160
BH1160'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1977
BH1160'RECOVERED IN GOOD CONDITION.
BH1160
BH1160 STATION RECOVERY (1980)
BH1160
BH1160'RECOVERY NOTE BY LA TRANSP AND DEV 1980
BH1160'RECOVERED IN GOOD CONDITION.
BH1160
BH1160 STATION RECOVERY (1984)
BH1160
BH1160'RECOVERY NOTE BY JEFFERSON PARISH LOUISIANA 1984
BH1160'RECOVERED IN GOOD CONDITION.
BH1160
BH1160 STATION RECOVERY (1985)
BH1160
BH1160'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1985
BH1160'RECOVERED IN GOOD CONDITION.
BH1160
BH1160 STATION RECOVERY (1986)
BH1160
BH1160'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1986
BH1160'RECOVERED IN GOOD CONDITION.
BH1160
BH1160 STATION RECOVERY (1990)
BH1160
BH1160'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1990
BH1160'37.4 KM (23.2 MI) EASTERLY ALONG U.S. HIGHWAY 90 (CHEF MENTEUR
BH1160'HIGHWAY) FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 IN NEW ORLEANS,
BH1160'AT FORT PIKE HISTORICAL SITE, IN THE CENTER OF A 4.1 M (13.5 FT)
BH1160'SQUARE CONCRETE BLOCK WHICH FORMERLY SUPPORTED A BEACON, 34.4 M
BH1160'(112.9 FT) SOUTHEAST OF THE HIGHWAY CENTERLINE, 20.5 M (67.3 FT) WEST
BH1160'OF TRIANGULATION STATION PIKE, 0.6 M (2.0 FT) ABOVE THE GROUND
BH1160'SURFACE, AND LEVEL WITH THE HIGHWAY.
BH1160
BH1160 STATION RECOVERY (1993)
BH1160

BH1160'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993
BH1160'37.4 KM (23.25 MI) EASTERLY ALONG U.S. HIGHWAY 90 (CHEF MENTEUR
BH1160'HIGHWAY) FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 IN NEW ORLEANS,
BH1160'NEAR THE CENTER OF A 12 BY 12-FOOT CONCRETE PAD THAT FORMERLY
BH1160'SUPPORTED A BEACON, 34.8 M (114.2 FT) SOUTHEAST OF AND LEVEL WITH THE
BH1160'CENTERLINE OF THE HIGHWAY, 25.5 M (83.7 FT) SOUTH OF BENCH MARK C
BH1160'193, 24.7 M (81.0 FT) SOUTH-SOUTHEAST OF A WITNESS POST, 20.5 M (67.3
BH1160'FT) WEST OF TRIANGULATION STATION PIKE RESET, 19.4 M (63.6 FT)
BH1160'SOUTHEAST OF A CHAIN-LINK FENCE, AND 2.9 M (9.5 FT) NORTHEAST OF THE
BH1160'SOUTHWEST CORNER OF THE PAD.
BH1160
BH1160 STATION RECOVERY (1994)
BH1160
BH1160'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (GAS)
BH1160'37.0 KM (23.00 MI) EASTERLY ALONG U.S. HIGHWAY 90 (CHEF MENTEUR
BH1160'HIGHWAY) FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 IN NEW ORLEANS,
BH1160'NEAR THE CENTER OF A 12 BY 12-FOOT CONCRETE PAD THAT FORMERLY
BH1160'SUPPORTED A BEACON, 34.8 M (114.2 FT) SOUTHEAST OF AND LEVEL WITH THE
BH1160'HIGHWAY CENTERLINE, 25.5 M (83.7 FT) SOUTH OF BENCH MARK C 193, 24.7 M
BH1160'(81.0 FT) SOUTH-SOUTHEAST OF A WITNESS POST, 20.5 M (67.3 FT) WEST OF
BH1160'TRIANGULATION STATION PIKE RESET, 19.4 M (63.6 FT) SOUTHEAST OF A
BH1160'CHAIN-LINK FENCE, AND 2.9 M (9.5 FT) NORTHEAST OF THE SOUTHWEST CORNER
BH1160'OF THE PAD.

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
BJ1342 **********
BJ1342 HT_MOD - This is a Louisiana Height Modernization Survey Station.
BJ1342 FBN - This is a Federal Base Network Control Station.
BJ1342 TIDAL BM - This is a Tidal Bench Mark.
BJ1342 DESIGNATION - ALCO
BJ1342 PID - BJ1342
BJ1342 STATE/COUNTY- LA/ORLEANS
BJ1342 USGS QUAD - SPANISH FORT (1992)
BJ1342
BJ1342 *CURRENT SURVEY CONTROL
BJ1342 _____
BJ1342* NAD 83(1992)- 30 01 36.52293(N) 090 06 46.21053(W) ADJUSTED
BJ1342* NAVD 88 - 1.87 **(meters) 6.1 **(feet) LEVELING(2004.65)
BJ1342 **This station is located in a subsidence area (see below).
BJ1342 **This station is included in the VTDP model (see below).
BJ1342 _____
BJ1342 EPOCH DATE - 2004.65
BJ1342 X - -10,884.174 (meters) COMP
BJ1342 Y - -5,526,738.134 (meters) COMP
BJ1342 Z - 3,172,935.170 (meters) COMP
BJ1342 LAPLACE CORR- -0.05 (seconds) DEFLEC99
BJ1342 ELLIP HEIGHT- -24.37 (meters) (06/22/05) GPS OBS
BJ1342 GEOID HEIGHT- -26.24 (meters) GEOID03
BJ1342 DYNAMIC HT - 1.87 (meters) 6.1 (feet) COMP
BJ1342 MODELED GRAV- 979,318.9 (mgal) NAVD 88
BJ1342
BJ1342 HORZ ORDER - B
BJ1342 VERT ORDER - THIRD
BJ1342 ELLP ORDER - FOURTH CLASS I
BJ1342
BJ1342.The horizontal coordinates were established by GPS observations
BJ1342.and adjusted by the National Geodetic Survey in June 2005.
BJ1342.The horizontal coordinates are valid at the epoch date displayed above.
BJ1342.The epoch date for horizontal control is a decimal equivalence
BJ1342.of Year/Month/Day.
BJ1342
BJ1342 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
BJ1342 ** and geoid heights are valid at the date of observation. These heights
BJ1342 ** must always be validated when used as control.
BJ1342 ** The orthometric height was determined with a Vertical Time-dependent
BJ1342 ** Positioning (VTDP) model and has been validated through GPS observations
BJ1342 ** for the epoch indicated (see www.ngs.noaa.gov/heightmod/VTDP.shtml).
BJ1342 ** The geoid height was determined by a new realization of GEOID03 for the
BJ1342 ** epoch indicated which incorporates improved geoid heights for the
BJ1342 ** Southern Louisiana Subsidence area
BJ1342 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
BJ1342.The orthometric height was determined by differential leveling.
BJ1342.The vertical network tie was performed by a horz. field party for horz.
BJ1342.obs reductions. Reset procedures were used to establish the elevation.
BJ1342
BJ1342.This Tidal Bench Mark is designated as VM 832
BJ1342.by the Center for Operational Oceanographic Products and Services.
BJ1342
BJ1342.The X, Y, and Z were computed from the position and the ellipsoidal ht.
BJ1342
BJ1342.The Laplace correction was computed from DEFLEC99 derived deflections.
BJ1342
BJ1342.The ellipsoidal height was determined by GPS observations
BJ1342.and is referenced to NAD 83.

BJ1342
BJ1342.The geoid height was determined by GEOID03.
BJ1342
BJ1342.The dynamic height is computed by dividing the NAVD 88
BJ1342.geopotential number by the normal gravity value computed on the
BJ1342.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
BJ1342.degrees latitude (g = 980.6199 gals.).
BJ1342
BJ1342.The modeled gravity was interpolated from observed gravity values.
BJ1342
BJ1342; North East Units Scale Factor Converg.
BJ1342;SPC LA S - 169,865.289 1,117,718.598 MT 0.99992585 +0 36 37.0
BJ1342;UTM 15 - 3,325,268.799 778,444.625 MT 1.00055667 +1 26 44.5
BJ1342
BJ1342! - Elev Factor x Scale Factor = Combined Factor
BJ1342!SPC LA S - 1.00000383 x 0.99992585 = 0.99992968
BJ1342!UTM 15 - 1.00000383 x 1.00055667 = 1.00056050
BJ1342
BJ1342: Primary Azimuth Mark Grid Az
BJ1342:SPC LA S - BUICK 082 43 27.0
BJ1342:UTM 15 - BUICK 081 53 19.5
BJ1342
BJ1342|---|
BJ1342| PID Reference Object Distance Geod. Az |
BJ1342| dddmmss.s |
BJ1342| BJ1346 BUICK APPROX. 0.7 KM 0832004.0 |
BJ1342| BJ4248 MT CARMEL CONVENT CROSS APPROX. 0.9 KM 1600326.3 |
BJ1342| BJ1344 ALCO RM 25738 |
BJ1342|---|
BJ1342
BJ1342 SUPERSEDED SURVEY CONTROL
BJ1342
BJ1342 NAD 83(1992)- 30 01 36.52299(N) 090 06 46.21029(W) AD( ) B
BJ1342 ELLIP H (12/29/04) -24.36 (m) GP( ) 4 1
BJ1342 ELLIP H (06/20/00) -24.36 (m) GP( ) 3 1
BJ1342 ELLIP H (01/21/93) -24.33 (m) GP( ) 4 2
BJ1342 NAD 83(1992)- 30 01 36.52269(N) 090 06 46.20939(W) AD( ) A
BJ1342 ELLIP H (09/04/92) -24.33 (m) GP( ) 3 1
BJ1342 NAD 83(1986)- 30 01 36.53967(N) 090 06 46.20687(W) AD( ) 1
BJ1342 NAD 83(1986)- 30 01 36.54071(N) 090 06 46.20093(W) AD( ) 3
BJ1342 NAD 27 - 30 01 35.81240(N) 090 06 45.94411(W) AD( ) 3
BJ1342 NAVD 88 (12/05/96) 2.008 (m) 6.59 (f) ADJUSTED 1 2
BJ1342 NAVD 88 (02/14/94) 2.002 (m) 6.57 (f) UNKNOWN 1 2
BJ1342 NGVD 29 (05/21/91) 2.061 (m) 6.76 (f) ADJUSTED 1 2
BJ1342
BJ1342.Superseded values are not recommended for survey control.
BJ1342.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BJ1342.See file dsdata.txt to determine how the superseded data were derived.
BJ1342
BJ1342_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYP7844525269(NAD 83)
BJ1342_MARKER: DS = TRIANGULATION STATION DISK
BJ1342_SETTING: 37 = SET IN A MASSIVE RETAINING WALL
BJ1342_SP_SET: SEA WALL
BJ1342_STAMPING: ALCO 1931
BJ1342_MARK LOGO: CGS
BJ1342_PROJECTION: FLUSH
BJ1342_MAGNETIC: N = NO MAGNETIC MATERIAL
BJ1342_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
BJ1342_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BJ1342+SATELLITE: SATELLITE OBSERVATIONS - October 08, 2005
BJ1342
BJ1342 HISTORY - Date Condition Report By

BJ1342 HISTORY - 1931 MONUMENTED CGS
BJ1342 HISTORY - 1935 GOOD LAGS
BJ1342 HISTORY - 1942 GOOD CGS
BJ1342 HISTORY - 1953 GOOD CGS
BJ1342 HISTORY - 1954 GOOD CGS
BJ1342 HISTORY - 1963 GOOD CGS
BJ1342 HISTORY - 1964 GOOD CGS
BJ1342 HISTORY - 1981 MARK NOT FOUND USGS
BJ1342 HISTORY - 1985 GOOD USPSQD
BJ1342 HISTORY - 1985 GOOD NGS
BJ1342 HISTORY - 1987 GOOD LADTD
BJ1342 HISTORY - 1988 GOOD USPSQD
BJ1342 HISTORY - 19880920 GOOD LADTD
BJ1342 HISTORY - 19890117 GOOD
BJ1342 HISTORY - 19901108 GOOD NGS
BJ1342 HISTORY - 19911016 GOOD LADTD
BJ1342 HISTORY - 19921124 GOOD NOS
BJ1342 HISTORY - 19930303 GOOD NOS
BJ1342 HISTORY - 19941117 GOOD NGS
BJ1342 HISTORY - 19960130 GOOD NGS
BJ1342 HISTORY - 19960218 GOOD NGS
BJ1342 HISTORY - 19980213 GOOD NGS
BJ1342 HISTORY - 19980309 GOOD NGS
BJ1342 HISTORY - 20010505 GOOD NGS
BJ1342 HISTORY - 20030402 GOOD 3001
BJ1342 HISTORY - 20040601 GOOD NGS
BJ1342 HISTORY - 20040922 GOOD LADTD
BJ1342 HISTORY - 20051008 GOOD NGS
BJ1342
BJ1342 STATION DESCRIPTION
BJ1342
BJ1342'DESCRIBED BY COAST AND GEODETIC SURVEY 1931 (RLS)
BJ1342'NEAR THE WEST END LIGHTHOUSE, ON THE LAKE PONTCHARTRAIN
BJ1342'SEA-WALL IN ZONE 1, WHICH LIES BETWEEN THE ORLEANS CANAL AND THE
BJ1342'NEW BASIN CANAL, AND IN THE 132ND BAY COUNTING FROM THE ORLEANS
BJ1342'CANAL.
BJ1342'
BJ1342'THE STATION IS MARKED BY A STANDARD BRONZE DISK WHICH IS SET
BJ1342'FLUSH WITH THE TOP SURFACE OF THE TOP COPING.
BJ1342'
BJ1342'THE REFERENCE MARK, A STANDARD BRONZE DISK, IS
BJ1342'S 77 DEG 38 MIN E.
BJ1342'
BJ1342'THE CROSS ON THE MOUNT CARMEL CONVENT IS S 19 DEG 56 MIN E.
BJ1342
BJ1342 STATION RECOVERY (1935)
BJ1342
BJ1342'RECOVERY NOTE BY LOUISIANA GEODETIC SURVEY 1935
BJ1342'STATION RECOVERED AS DESCRIBED.
BJ1342
BJ1342 STATION RECOVERY (1942)
BJ1342
BJ1342'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1942 (HCW)
BJ1342'STATION WAS RECOVERED AS DESCRIBED IN EVERY DETAIL. THE
BJ1342'DISTANCES AND DIRECTIONS TO AZIMUTH MARKS WERE NOT CHECKED.
BJ1342'
BJ1342'NEAR THE WEST END LIGHTHOUSE, ON THE LAKE PONTCHARTRAIN
BJ1342'SEA-WALL IN ZONE 1, WHICH LIES BETWEEN THE ORLEANS CANAL AND
BJ1342'THE NEW BASIN CANAL, AND IN THE 132ND BAY COUNTING FROM THE
BJ1342'ORLEANS CANAL.
BJ1342'
BJ1342'THE STATION IS MARKED BY A STANDARD BRONZE DISK WHICH IS SET

BJ1342'FLUSH WITH THE TOP FURFACE OF THE TOP COPING.
BJ1342'
BJ1342'THE REFERENCE MARK, A STANDARD BRONZE DISK, IS
BJ1342'S 77 DEG 38 MIN E.
BJ1342'
BJ1342'THE CROSS ON THE MOUNT CARMEL CONVENT IS S 19 DEG 56 MIN E.
BJ1342
BJ1342 STATION RECOVERY (1953)
BJ1342
BJ1342'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1953 (RLE)
BJ1342'STATION AND REFERENCE MARK WERE RECOVERED IN GOOD CONDITION.
BJ1342'A NEW DESCRIPTION FOLLOWS--
BJ1342'
BJ1342'STATION IS LOCATED ON THE LAKE PONTCHARTRAIN SEAWALL, JUST E
BJ1342'OF A U.S. COAST GUARD STATION. IT IS A STANDARD BRONZE DISK,
BJ1342'STAMPED ALCO 1931 AND CEMENTED IN A DRILL HOLE IN THE TOP OF A
BJ1342'CONCRETE SEAWALL.
BJ1342'
BJ1342'THE REFERENCE MARK IS A STANDARD BRONZE DISK, STAMPED ALCO 1931
BJ1342'AND CEMENTED IN A DRILL HOLE IN THE TOP OF A CONCRETE SEAWALL.
BJ1342'
BJ1342'TO REACH THE STATION FROM THE INTERSECTION OF LAKESHORE DRIVE
BJ1342'AND CANAL BOULEVARD, GO W ON LAKESHORE DRIVE ALONG THE SEAWALL
BJ1342'FOR 0.4 MI. TO THE STATION ON THE RIGHT AS DESCRIBED JUST E OF
BJ1342'THE COAST GUARD STATION.
BJ1342
BJ1342 STATION RECOVERY (1954)
BJ1342
BJ1342'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1954 (RAE)
BJ1342'THE STATION IS LOCATED IN THE NW SECTION OF NEW ORLEANS, NEAR THE
BJ1342'MOUTH OF NEW CANAL, 150 FT. SE OF NEW CANAL LIGHTHOUSE, AND ON
BJ1342'THE S SHORE OF LAKE PONCHARTRAIN. IT IS 46 PACES E OF THE W END
BJ1342'OF THE SEAWALL, AND 132 BAYS W OF ORLEANS CANAL. IT IS A
BJ1342'STANDARD DISK, SET IN A DRILL HOLE IN THE TOP OF THE SEAWALL. IT
BJ1342'IS STAMPED ALCO 1931.
BJ1342'
BJ1342'THE REFERENCE MARK IS W OF THE STATION S 77 DEG 38 MIN W.
BJ1342'IT IS 13 PACES E OF THE W END OF THE SEAWALL. IT IS A STANDARD
BJ1342'DISK, SET IN A DRILL HOLE IN THE TOP OF THE SEAWALL, AND STAMPED
BJ1342'ALCO 1931.
BJ1342
BJ1342 STATION RECOVERY (1963)
BJ1342
BJ1342'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1963
BJ1342'IN NEW ORLEANS.
BJ1342'AT NEW ORLEANS, AT WEST END, NEAR THE NORTH END OF WEST END BOULEVARD,
BJ1342'NEAR THE COAST GUARD STATION, SET IN THE TOP OF THE SEA WALL ALONG
BJ1342'SHORE OF LAKE PONTCHARTRAIN, 112 FEET NORTHWEST OF THE CENTER LINE OF
BJ1342'LAKESHORE DRIVE, 115 FEET EAST OF THE WEST END OF THE SEA WALL, 70
BJ1342'FEET EAST OF A STEEL FENCE CORNER POST ON TOP OF THE SEA WALL AND IS
BJ1342'ABOUT 2 FEET ABOVE THE DRIVE.
BJ1342
BJ1342 STATION RECOVERY (1964)
BJ1342
BJ1342'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1964 (RRG)
BJ1342'THE STATION AND ONE REFERENCE MARK WAS FOUND AND IN GOOD
BJ1342'CONDITION.
BJ1342'
BJ1342'THE STATION IS LOCATED ALONG THE SEA WALL ALONG THE SHORE OF LAKE
BJ1342'PONTCHARTRAIN, NEAR THE COAST GUARD STATION, 112 FEET NORTHWEST
BJ1342'OF THE CENTER LINE OF LAKESHORE DRIVE, 115 FEET EAST OF THE WEST
BJ1342'END OF THE SEA WALL, 70 FEET EAST OF A STEEL FENCE POST IN

BJ1342'SEA WALL AND ABOUT 2 FEET ABOVE THE LEVEL OF THE DRIVE.
BJ1342'
BJ1342'THE REFERENCE MARK IS 87 FEET WEST OF THE STATION AND SET ON
BJ1342'TOP OF THE SEA WALL. 23 FEET EAST OF THE WEST END OF THE WALL
BJ1342'AND 2 FEET ABOVE THE LEVEL OF THE DRIVE,
BJ1342
BJ1342 STATION RECOVERY (1981)
BJ1342
BJ1342'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1981
BJ1342'MARK NOT FOUND.
BJ1342
BJ1342 STATION RECOVERY (1985)
BJ1342
BJ1342'RECOVERY NOTE BY US POWER SQUADRON 1985 (JCM)
BJ1342'ALCO--1931 FOUND GOOD.
BJ1342'
BJ1342'DESCRIPTION ADEQUATE.
BJ1342'
BJ1342'REFERENCE MARK FOUND GOOD.
BJ1342'LOCATED ON TOP SURFACE OF SEA WALL 87 FEET WEST OF STATION, APPROX.
BJ1342'TWO FEET WEST OF US COAST GUARD DRIVEWAY GATE, UNDER CYCLONE FENCE.
BJ1342
BJ1342 STATION RECOVERY (1985)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1985
BJ1342'RECOVERED IN GOOD CONDITION, THE 1963 RECOVERY IS ADEQUATE WITH THE
BJ1342'FOLLOWING ADDITION, ADD--7.07 METERS (23.2 FT) NORTH-NORTHEAST OF
BJ1342'STEEL LAMP POST 500.
BJ1342
BJ1342 STATION RECOVERY (1987)
BJ1342
BJ1342'RECOVERY NOTE BY LA TRANSP AND DEV 1987 (TLH)
BJ1342'THE DESIGNATED MARK WAS RECOVERED WITH CHANGES NOTED BELOW--
BJ1342'A COMPLETE NEW DESCRIPTION WAS MADE THIS DATE.
BJ1342'
BJ1342'THE STATION IS LOCATED ABOUT 7 KM (4.4 MI) NORTH OF INTERSTATE
BJ1342'HIGHWAY 10, NEAR THE U.S. COAST GUARD STATION AT LAKE PONCHATRAIN.
BJ1342'OWNERSHIP--ORLEANS PARISH LEVEE BOARD, SUITE 202, ADMINISTRATION
BJ1342'BUILDING, LAKEFRONT AIRPORT, NEW ORLEANS, LA. PHONE 504-246-4000.
BJ1342'
BJ1342'TO REACH THE STATION FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 AND
BJ1342'CAUSEWAY BOULEVARD, GO NORTH FOR 0.55 KM (0.35 MI) ON CAUSEWAY
BJ1342'BOULEVARD TO VETERANS MEMORIAL HIGHWAY.
BJ1342'TURN RIGHT AND GO EAST FOR 3.89 KM (2.4 MI) ON VETERANS MEMORIAL
BJ1342'BOULEVARD TO PONCHATRAIN BOULEVARD.
BJ1342'TURN LEFT AND GO NORTH FOR 1.85 KM (1.15 MI) ON PONCHATRAIN
BJ1342'BOULEVARD TO ROBERT E LEE BOULEVARD.
BJ1342'CONTINUE STRAIGHT AHEAD AND GO NORTH FOR 0.72 KM (0.45 MI) ON
BJ1342'ROBERT E LEE BOULEVARD TO THE COAST GUARD STATION ENTRANCE ON THE
BJ1342'LEFT AT THE EAST END OF A CURVE IN THE ROAD. TURN LEFT ONTO A
BJ1342'NARROW LANE FOR 30 METERS (100 FT) TO THE STATION ON THE RIGHT.
BJ1342'
BJ1342'THE STATION IS A STANDARD CGS DISK
BJ1342'STAMPED---ALCO 1931---,
BJ1342'SET INTO A DRILL HOLE IN THE TOP STEP OF THE SEAWALL.
BJ1342'21.2 METERS (69.5 FT) EAST FROM THE EAST GATE POST AT THE ENTRANCE
BJ1342'TO THE COAST GUARD STATION,
BJ1342'7.2 METERS (23.6 FT) NORTHEAST FROM A METAL LIGHT POLE, AND
BJ1342'4.6 METERS (15.1 FT) WEST FROM A SEAM IN THE SEAWALL.
BJ1342
BJ1342 STATION RECOVERY (1988)
BJ1342

BJ1342'RECOVERY NOTE BY US POWER SQUADRON 1988 (WFT)
BJ1342'RECOVERED IN GOOD CONDITION.
BJ1342
BJ1342 STATION RECOVERY (1988)
BJ1342
BJ1342'RECOVERY NOTE BY LA TRANSP AND DEV 1988
BJ1342'THE STATION IS LOCATED ABOUT 7 KM (4.35 MI) NORTH OF INTERSTATE
BJ1342'HIGHWAY 10, NEAR THE U.S. COAST GUARD STATION AT LAKE PONTCHATRAIN.
BJ1342'OWNERSHIP--ORLEANS PARISH LEVEE BOARD, SUITE 202, ADMINISTRATION
BJ1342'BUILDING, LAKEFRONT AIRPORT, NEW ORLEANS, LA. PHONE 504-246-4000.
BJ1342'TO REACH THE STATION FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 AND
BJ1342'CAUSEWAY BOULEVARD, GO NORTH FOR 0.55 KM (0.35 MI) ON CAUSEWAY
BJ1342'BOULEVARD TO VETERANS MEMORIAL HIGHWAY, TURN RIGHT AND GO EAST FOR
BJ1342'3.89 KM (2.40 MI) ON VETERANS MEMORIAL BOULEVARD TO WEST END BLVD,
BJ1342'TURN LEFT AND GO NORTH ON WEST END BLVD FOR 2.57 KM (1.60 MI) TO THE
BJ1342'COAST GUARD STATION ENTRANCE ON THE LEFT AT THE EAST END OF A CURVE IN
BJ1342'THE ROAD. TURN LEFT ONTO A NARROW LANE FOR 30 METERS (98.4 FT) TO THE
BJ1342'STATION ON THE RIGHT, 21.2 M (69.6 FT) EAST FROM THE EAST GATE POST AT
BJ1342'THE ENTRANCE TO THE COAST GUARD STATION, 7.2 M (23.6 FT) NORTHEAST
BJ1342'FROM A METAL LIGHT POLE, AND 4.6 M (15.1 FT) WEST FROM A SEAM IN THE
BJ1342'SEAWALL.
BJ1342
BJ1342 STATION RECOVERY (1989)
BJ1342
BJ1342'RECOVERED 1989
BJ1342'RECOVERED IN GOOD CONDITION.
BJ1342
BJ1342 STATION RECOVERY (1990)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1990
BJ1342'IN NEW ORLEANS, AT 800 LAKESHORE DRIVE, IN A CONCRETE RETAINING WALL
BJ1342'ALONG THE SOUTH SHORE OF LAKE PONTCHARTRAIN, 38.8 M (127.3 FT)
BJ1342'EAST-SOUTHEAST OF THE SOUTHEAST CORNER OF A LIGHTHOUSE AT 800
BJ1342'LAKESHORE DRIVE, 35.0 M (114.8 FT) EAST OF THE WEST END OF THE
BJ1342'RETAINING WALL, 34.1 M (111.9 FT) NORTHWEST OF THE CENTERLINE OF THE
BJ1342'DRIVE, 23.9 M (78.4 FT) EAST OF THE CENTER OF A DRIVEWAY, 21.3 M
BJ1342'(69.9 FT) EAST OF A STEEL FENCE CORNER POST ON TOP OF THE SEA WALL,
BJ1342'7.1 M (23.3 FT) NORTH-NORTHEAST OF UTILITY LIGHT POLE NUMBER 500, AND
BJ1342'0.6 M (2.0 FT) ABOVE THE LEVEL OF THE DRIVE.
BJ1342
BJ1342 STATION RECOVERY (1991)
BJ1342
BJ1342'RECOVERY NOTE BY LA TRANSP AND DEV 1991
BJ1342'THE STATION IS LOCATED IN NORTHWEST NEW ORLEANS, NEAR THE U.S. COAST
BJ1342'GUARD STATION ON THE SOUTH SHORE OF LAKE PONCHATRAIN.
BJ1342'OWNERSHIP--ORLEANS PARISH LEVEE BOARD, SUITE 202, ADMINISTRATION
BJ1342'BUILDING, LAKEFRONT AIRPORT, NEW ORLEANS, LA. PHONE 504-246-4000.
BJ1342'TO REACH THE STATION FROM THE JUNCTION OF INTERSTATE HIGHWAY 10 AND
BJ1342'CAUSEWAY BOULEVARD, GO NORTH FOR 0.35 MI (0.56 KM) ON CAUSEWAY
BJ1342'BOULEVARD TO THE JUNCTION WITH VETERANS MEMORIAL BOULVARD, TURN RIGHT
BJ1342'AND GO EAST FOR 2.4 MI (3.9 KM) ON VETERANS BOULEVARD TO THE JUNCTION
BJ1342'WITH WEST END BOULEVARD, TURN LEFT AND GO NORTH FOR 1.6 MI (2.6 KM)
BJ1342'ON WEST END BOULEVARD WHICH TURNS INTO LAKESHORE DRIVE TO THE COAST
BJ1342'GUARD STATION ON THE LEFT AND STATION MARK ON THE LEFT SET IN THE
BJ1342'SEAWALL.
BJ1342'THE STATION IS 123.0 FT (37.5 M) NORTH-NORTHWEST FROM THE CENTER OF
BJ1342'LAKESHORE DRIVE, 69.5 FT (21.2 M) EAST-NORTHEAST FROM THE EAST GATE
BJ1342'POST AT THE ENTRANCE OF THE COAST GUARD STATION, 23.5 FT (7.2 M)
BJ1342'NORTHEAST FROM A METAL LIGHT POLE, 32.5 FT (9.9 M) NORTH FROM THE
BJ1342'CENTER OF THE DRIVE INTO THE COAST GUARD STATION, 15.0 FT (4.6 M)
BJ1342'WEST-SOUTHWEST FROM A SEAM IN THE SEA WALL, FLUSH WITH THE TOP OF THE
BJ1342'SEAWALL AND ABOUT LEVEL WITH THE ROAD.

BJ1342
BJ1342 STATION RECOVERY (1992)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1992
BJ1342'RECOVERED IN GOOD CONDITION.
BJ1342
BJ1342 STATION RECOVERY (1993)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1993
BJ1342'RECOVERED IN GOOD CONDITION.
BJ1342
BJ1342 STATION RECOVERY (1994)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (GAS)
BJ1342'IN NEW ORLEANS, AT 8001 LAKESHORE DRIVE, IN A CONCRETE RETAINING WALL
BJ1342'ALONG THE SOUTH SHORE OF LAKE PONTCHARTRAIN, 36.7 M (120.4 FT)
BJ1342'SOUTHEAST OF THE SOUTHEAST CORNER OF THE U.S. COAST GUARD LIGHT HOUSE
BJ1342'AT 8001 LAKESHORE DRIVE, 27.3 M (89.6 FT) EAST OF ALCO REFERENCE MARK,
BJ1342'9.9 M (32.5 FT) NORTH-NORTHEAST OF AND LEVEL WITH THE CENTER OF THE
BJ1342'LIGHTHOUSE ENTRANCE DRIVE, AND 7.2 M (23.6 FT) NORTHEAST OF A UTILITY
BJ1342'LIGHT POLE.
BJ1342
BJ1342 STATION RECOVERY (1996)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1996 (RPB)
BJ1342'RECOVERED AS DESCRIBED.
BJ1342
BJ1342 STATION RECOVERY (1996)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1996 (RPB)
BJ1342'RECOVERED AS DESCRIBED.
BJ1342
BJ1342 STATION RECOVERY (1998)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (CSM)
BJ1342'RECOVERED AS DESCRIBED.
BJ1342
BJ1342 STATION RECOVERY (1998)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (CSM)
BJ1342'RECOVERED AS DESCRIBED.
BJ1342
BJ1342 STATION RECOVERY (2001)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2001 (RTN)
BJ1342'THIS STATION IS LOCATED IN NORTH NEW ORLEANS, LOUISIANA. IN A
BJ1342'CONCRETE
BJ1342'RETAINING WALL ALONG THE SOUTH SHORE OF LAKE PONTCHARTRAIN.
BJ1342'OWNERSHIP IS THE ORLEANS PARISH LEVEE BOARD, SUITE 202, ADMINISTRATION
BJ1342'BUILDING, LAKEFRONT AIRPORT, STARS AND STRIPES BOULEVARD, NEW ORLEANS,
BJ1342'LA. PHONE 504 246-4000.
BJ1342'
BJ1342'TO REACH THIS STATION FROM THE JUNCTION OF INTERSTATE 10 AND CAUSEWAY
BJ1342'BOULEVARD, GO NORTH FOR 0.35 MILES ON CAUSEWAY BOULEVARD TO THE
BJ1342'JUNCTION WITH VETERANS BOULEVARD. RIGHT AND GO EAST FOR 2.4 MILES ON
BJ1342'VETERANS BOULEVARD TO THE JUNCTION WITH WEST END BOULEVARD, TURN
BJ1342'LEFT AND GO NORTH FOR 1.6 MILES ON WEST END BOULEVARD WHICH TURNS INTO
BJ1342'LAKESHORE DRIVE TO THE COAST GUARD
BJ1342'
BJ1342'STATION ON LEFT AND STATION ON THE LEFT. . STATION IS SET IN THE
BJ1342'SEAWALL. IT
BJ1342'IS 217.0 FEET NORTH-NORTHWEST FROM THE CENTER OF LAKESHORE DRIVE, 69.5

BJ1342'FEET EAST-NORTHEAST FROM TH EAST GATE POST AT THE ENTRANCE OF THE
BJ1342'COAST GUARD STATION, 23.5 FEET NORTH FROM THE CENTER OF THE DRIVE INTO
BJ1342'COAST GUARD STATION, 15.0 FEET WEST-SOUTHWEST FROM THE SEAM IN THE SEA
BJ1342'WALL, 89.6 FEET EAST OF ALCO REFERENCE MARK, 23.6 FEET NORTHEAST OF A
BJ1342'UTILITY LIGHT POLE, AND FLUSH WITH TOP OF THE SEAWALL AND ABOUT LEVEL
BJ1342'WITH ROAD.
BJ1342'
BJ1342'
BJ1342
BJ1342 STATION RECOVERY (2003)
BJ1342
BJ1342'RECOVERY NOTE BY 3001, INC 2003 (KD)
BJ1342'THE STATION IS LOCATED IN NEW ORLEANS ON A SEA WALL BESIDE JOES
BJ1342'RESTURANT AT THE LAKE SHORE. ITI IS NEXT TO A GREEN AND WHITE LIGHT
BJ1342'HOUSE. THE STATION IS 3.8 MILES FROM METAIRIE, 8.0 MILES FROM KENNER,
BJ1342'AND 10.7 MILES FROM CHALMETTE.
BJ1342'
BJ1342'OWNERSHIP- UNKNOWN
BJ1342'
BJ1342'TO REACH THE STATION FROM THE INTERSECTION OF I-10 AND I-610 DRIVE
BJ1342'NORTH ON WEST END BLVD. FOR 1.7 MILES. THE ROAD BECOMES LAKE FRONT
BJ1342'DRIVE. KEEP GOING FOR 0.4 MILES TO A CURVE IN THE ROAD. TURN INTO
BJ1342'JOE'S RESTURANT PARKING LOT ON THE LEFT SIDE OF THE ROAD. THE STATION
BJ1342'IS LOCATED NORTH OF THE PARKING AREA IN THE SEAWALL.
BJ1342'
BJ1342'THE STATION IS A TRIANGULATION STATION DISK SET FLUSH IN A SEAWALL. IT
BJ1342'IS LOCATED 68.7 FT. EAST FROM THE CORNER OF THE SEAWALL, 23.5 FT.
BJ1342'NORTHEAST FROM A LIGHT POLE, AND 54 FEET NORTHWEST OF A STORM DRAIN.
BJ1342
BJ1342 STATION RECOVERY (2004)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
BJ1342'RECOVERED AS DESCRIBED.
BJ1342
BJ1342 STATION RECOVERY (2004)
BJ1342
BJ1342'RECOVERY NOTE BY LA TRANSP AND DEV 2004 (SLC)
BJ1342'RECOVERED IN GOOD CONDITION.
BJ1342
BJ1342 STATION RECOVERY (2005)
BJ1342
BJ1342'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (KLF)
BJ1342'RECOVERED AS DESCRIBED.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service

Station ID: 8761678 PUBLICATION DATE: 05/23/2003
Name: MICHOUD SUBSTATION, ICWW
LOUISIANA
NOAA Chart: 11369 Latitude: 30ø 0.4' N
USGS Quad: LITTLE WOODS Longitude: 89ø 56.2' W

T I D A L B E N C H M A R K S

BENCH MARK STAMPING: **WES 19 1978**
DESIGNATION: WES 19

MONUMENTATION: Survey disk VM#: 6520
AGENCY: US Army Corps of Engineers (USE) PID#: BH3007
SETTING CLASSIFICATION: Copper-clad steel rod

The bench mark is a disk located on the west side of the substation property, 53.40 m (175.2 ft) NNW of the corner of a hurricane fence on the top of the levee, 30.60 m (100.4 ft) SSE of the center post of an automatic electric gate, and 1 m (2 ft) west of a witness post with sign. The bench mark is set 6 cm (0.2 ft) below ground level, crimped to a copper-clad steel rod driven 27.4 m (90 ft), and encased in a 6-inch plastic pipe.

BENCH MARK STAMPING: **1678 A 1982**
DESIGNATION: 876 1678 A

MONUMENTATION: Tidal Station disk VM#: 6521
AGENCY: National Ocean Survey (NOS) PID:
SETTING CLASSIFICATION: Concrete pad

The bench mark is a disk set flush in a concrete gateway pad, on top of the levee near the skimmer gate, 52 m (172 ft) south of the SW water tower pad, 33 m (107 ft) NE of the SW corner of a chain link fence around a cooling vent, 20 m (64 ft) NNW of the chain link fence on the south side around the substation, 14 m (46 ft) NW of the NW corner of the cooler vent scaffolding, and 1 m (4 ft) SSE of a concrete wall on the levee south of the substation.

DG6568 **********
DG6568 HT_MOD - This is a Louisiana Height Modernization Survey Station.
DG6568 CORS - This is a GPS Continuously Operating Reference Station.
DG6568 DESIGNATION - COVINGTON CORS ARP
DG6568 CORS_ID - COVG
DG6568 PID - DG6568
DG6568 STATE/COUNTY- LA/ST TAMMANY
DG6568 USGS QUAD - COVINGTON (1994)
DG6568
DG6568 *CURRENT SURVEY CONTROL
DG6568 _____
DG6568* NAD 83(CORS)- 30 28 33.26965(N) 090 05 43.92326(W) ADJUSTED
DG6568* NAVD 88 - 22.39 **(meters) 73.5 **(feet) GPS OBS(2004.65)
DG6568 **This station is located in a subsidence area (see below).
DG6568 _____
DG6568 EPOCH DATE - 2002.00
DG6568 X - -9,173.433 (meters) COMP
DG6568 Y - -5,501,676.859 (meters) COMP
DG6568 Z - 3,215,950.683 (meters) COMP
DG6568 ELLIP HEIGHT- -4.56 (meters) (08/??/04) GPS OBS
DG6568 GEOID HEIGHT- -26.98 (meters) GEOID03
DG6568
DG6568 HORZ ORDER - SPECIAL (CORS)
DG6568 ELLP ORDER - SPECIAL (CORS)
DG6568
DG6568.ITRF positions are available for this station.
DG6568.The coordinates were established by GPS observations
DG6568.and adjusted by the National Geodetic Survey in August 2004.
DG6568.The coordinates are valid at the epoch date displayed above.
DG6568.The epoch date for horizontal control is a decimal equivalence
DG6568.of Year/Month/Day.
DG6568
DG6568 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
DG6568 ** and geoid heights are valid at the date of observation. These heights
DG6568 ** must always be validated when used as control.
DG6568 ** The orthometric height was determined by GPS observations using
DG6568 ** precise GPS observation and processing techniques and a new
DG6568 ** realization of GEOID03. It supersedes the leveled height previously
DG6568 ** determined for this station.
DG6568 ** The geoid height was determined by a new realization of GEOID03 for the
DG6568 ** epoch indicated which incorporates improved geoid heights for the
DG6568 ** Southern Louisiana Subsidence area.
DG6568 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03/).
DG6568.The orthometric height was determined by GPS observations and a
DG6568.high-resolution geoid model using precise GPS observation and
DG6568.processing techniques.
DG6568
DG6568.The PID for the CORS L1 Phase Center is DG6569.
DG6568
DG6568.The XYZ, and position/ellipsoidal ht. are equivalent.
DG6568
DG6568.The ellipsoidal height was determined by GPS observations
DG6568.and is referenced to NAD 83.
DG6568
DG6568.The geoid height was determined by GEOID03.
DG6568

DG6568; North East Units Scale Factor Converg.
DG6568;SPC LA S - 219,662.521 1,118,849.594 MT 0.99996000 +0 37 08.1
DG6568
DG6568! - Elev Factor x Scale Factor = Combined Factor
DG6568!SPC LA S - 1.00000072 x 0.99996000 = 0.99996072
DG6568
DG6568 SUPERSEDED SURVEY CONTROL
DG6568
DG6568.No superseded survey control is available for this station.
DG6568
DG6568_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYP7884175108(NAD 83)
DG6568_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
DG6568
DG6568 STATION DESCRIPTION
DG6568
DG6568'DESCRIBED BY NATIONAL GEODETIC SURVEY 2004
DG6568'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
DG6568'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DG6568'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DG6568' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
DG6568' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.
DG6569 **********
DG6569 CORS - This is a GPS Continuously Operating Reference Station.
DG6569 DESIGNATION - COVINGTON CORS L1 PHASE CENTER
DG6569 CORS_ID - COVG
DG6569 PID - DG6569
DG6569 STATE/COUNTY- LA/ST TAMMANY
DG6569 USGS QUAD - COVINGTON (1994)
DG6569
DG6569 *CURRENT SURVEY CONTROL
DG6569 _____
DG6569* NAD 83(CORS)- 30 28 33.26967(N) 090 05 43.92325(W) ADJUSTED
DG6569* NAVD 88 -
DG6569 _____
DG6569 EPOCH DATE - 2002.00
DG6569 X - -9,173.433 (meters) COMP
DG6569 Y - -5,501,676.954 (meters) COMP
DG6569 Z - 3,215,950.739 (meters) COMP
DG6569 ELLIP HEIGHT- -4.45 (meters) (08/??/04) GPS OBS
DG6569 GEOID HEIGHT- -26.98 (meters) GEOID03
DG6569
DG6569 HORZ ORDER - SPECIAL (CORS)
DG6569 ELLP ORDER - SPECIAL (CORS)
DG6569
DG6569.ITRF positions are available for this station.
DG6569.The coordinates were established by GPS observations
DG6569.and adjusted by the National Geodetic Survey in August 2004.
DG6569.The coordinates are valid at the epoch date displayed above.
DG6569.The epoch date for horizontal control is a decimal equivalence
DG6569.of Year/Month/Day.
DG6569
DG6569
DG6569.The PID for the CORS ARP is DG6568.
DG6569
DG6569.The XYZ, and position/ellipsoidal ht. are equivalent.
DG6569

DG6569.The ellipsoidal height was determined by GPS observations
DG6569.and is referenced to NAD 83.
DG6569
DG6569.The geoid height was determined by GEOID03.
DG6569
DG6569; North East Units Scale Factor Converg.
DG6569;SPC LA S - 219,662.521 1,118,849.594 MT 0.99996000 +0 37 08.1
DG6569
DG6569! - Elev Factor x Scale Factor = Combined Factor
DG6569!SPC LA S - 1.00000070 x 0.99996000 = 0.99996070
DG6569
DG6569 SUPERSEDED SURVEY CONTROL
DG6569
DG6569.No superseded survey control is available for this station.
DG6569
DG6569_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYP7884175108(NAD 83)
DG6569_MARKER: STATION IS THE L1 PHASE CENTER OF THE GPS ANTENNA
DG6569
DG6569 STATION DESCRIPTION
DG6569
DG6569'DESCRIBED BY NATIONAL GEODETIC SURVEY
DG6569'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
DG6569'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DG6569'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DG6569' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
DG6569' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

AF9593 **
AF9593 HT_MOD   - This is a Louisiana Height Modernization Survey Station.
AF9593 CORS   - This is a GPS Continuously Operating Reference Station.
AF9593 DESIGNATION - ENGLISH TURN 2 CORS ARP
AF9593 CORS_ID   - ENG2
AF9593 PID   - AF9593
AF9593 STATE/COUNTY- LA/PLAQUEMINES
AF9593 USGS QUAD   - CHALMETTE (1994)
AF9593
AF9593   *CURRENT SURVEY CONTROL
AF9593 ____
AF9593* NAD 83(CORS)- 29 52 45.04451(N)   089 56 31.48474(W)   ADJUSTED
AF9593* NAVD 88   -   8.63 **(meters)   28.3 **(feet) GPS OBS(2004.65)
AF9593 **This station is located in a subsidence area (see below).
AF9593 ____
AF9593 EPOCH DATE -   2002.00
AF9593 X   -   5,595.314 (meters)   COMP
AF9593 Y   - -5,534,923.260 (meters)   COMP
AF9593 Z   -   3,158,759.288 (meters)   COMP
AF9593 ELLIP HEIGHT-   -17.19 (meters)   (10/??/05) GPS OBS
AF9593 GEOID HEIGHT-   -25.82 (meters)   GEOID03
AF9593
AF9593 HORZ ORDER - SPECIAL (CORS)
AF9593 ELLP ORDER - SPECIAL (CORS)
AF9593
AF9593.ITRF positions are available for this station.
AF9593.The coordinates were established by GPS observations
AF9593.and adjusted by the National Geodetic Survey in October 2005.
AF9593.The coordinates are valid at the epoch date displayed above.
AF9593.The epoch date for horizontal control is a decimal equivalence
AF9593.of Year/Month/Day.
AF9593
AF9593 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
AF9593 ** and geoid heights are valid at the date of observation. These heights
AF9593 ** must always be validated when used as control.
AF9593 ** The orthometric height was determined by GPS observations using
AF9593 ** precise GPS observation and processing techniques and a new
AF9593 ** realization of GEOID03. It supersedes the leveled height previously
AF9593 ** determined for this station.
AF9593 ** The geoid height was determined by a new realization of GEOID03 for the
AF9593 ** epoch indicated which incorporates improved geoid heights for the
AF9593 ** Southern Louisiana Subsidence area.
AF9593 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03/).
AF9593.The orthometric height was determined by GPS observations and a
AF9593.high-resolution geoid model using precise GPS observation and
AF9593.processing techniques.
AF9593
AF9593.The PID for the CORS L1 Phase Center is CQ5984.
AF9593
AF9593.The XYZ, and position/ellipsoidal ht. are equivalent.
AF9593
AF9593.The ellipsoidal height was determined by GPS observations
AF9593.and is referenced to NAD 83.
AF9593
AF9593.The geoid height was determined by GEOID03.
AF9593

AF9593; North East Units Scale Factor Converg.
AF9593;SPC LA S - 153,690.042 1,134,386.275 MT 0.99992799 +0 41 44.3
AF9593
AF9593! - Elev Factor x Scale Factor = Combined Factor
AF9593!SPC LA S - 1.00000270 x 0.99992799 = 0.99993069
AF9593
AF9593 SUPERSEDED SURVEY CONTROL
AF9593
AF9593 NAD 83(CORS)- 29 52 45.04458(N) 089 56 31.48453(W) AD(2002.00) c
AF9593 NAD 83(CORS)- 29 52 45.04424(N) 089 56 31.48517(W) AD(2002.00) c
AF9593 ELLIP H (03/??/02) -17.17 (m) GP(2002.00) c c
AF9593 NAD 83(CORS)- 29 52 45.04427(N) 089 56 31.48457(W) AD(1997.00) c
AF9593 NAD 83(CORS)- 29 52 45.04427(N) 089 56 31.48457(W) AD(1996.00) c
AF9593 ELLIP H (08/??/96) -17.17 (m) GP(1997.00) c c
AF9593 ELLIP H (08/??/96) -17.17 (m) GP(1996.00) c c
AF9593
AF9593.Superseded values are not recommended for survey control.
AF9593.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AF9593.See file dsdata.txt to determine how the superseded data were derived.
AF9593
AF9593_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU1583709034(NAD 83)
AF9593_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
AF9593
AF9593 STATION DESCRIPTION
AF9593
AF9593'DESCRIBED BY NATIONAL GEODETIC SURVEY 2005
AF9593'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
AF9593'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
AF9593'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
AF9593' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
AF9593' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.
CQ5984 **********
CQ5984 CORS - This is a GPS Continuously Operating Reference Station.
CQ5984 DESIGNATION - ENGLISH TURN 2 CORS L1 PHASE CENTER
CQ5984 CORS_ID - ENG2
CQ5984 PID - CQ5984
CQ5984 STATE/COUNTY- LA/PLAQUEMINES
CQ5984 USGS QUAD - CHALMETTE (1994)
CQ5984
CQ5984 *CURRENT SURVEY CONTROL
CQ5984 _____
CQ5984* NAD 83(CORS)- 29 52 45.04447(N) 089 56 31.48477(W) ADJUSTED
CQ5984* NAVD 88 -
CQ5984 **This station is located in a subsidence area (see below).
CQ5984 _____
CQ5984 EPOCH DATE - 2002.00
CQ5984 X - 5,595.313 (meters) COMP
CQ5984 Y - -5,534,923.339 (meters) COMP
CQ5984 Z - 3,158,759.332 (meters) COMP
CQ5984 ELLIP HEIGHT- -17.10 (meters) (10/??/05) GPS OBS
CQ5984 GEOID HEIGHT- -25.82 (meters) GEOID03
CQ5984
CQ5984 HORZ ORDER - SPECIAL (CORS)
CQ5984 ELLP ORDER - SPECIAL (CORS)
CQ5984
CQ5984.ITRF positions are available for this station.

CQ5984.The coordinates were established by GPS observations
CQ5984.and adjusted by the National Geodetic Survey in October 2005.
CQ5984.The coordinates are valid at the epoch date displayed above.
CQ5984.The epoch date for horizontal control is a decimal equivalence
CQ5984.of Year/Month/Day.
CQ5984
CQ5984 ** The orthometric height has not been validated since last determined
CQ5984 ** by differential leveling and should not be used for control purposes.
CQ5984 ** See www.ngs.noaa.gov/heightmod/LouisianaControl.shtml for stations in this
CQ5984 ** area with valid NAVD 88 orthometric heights.
CQ5984 ** The geoid height was determined by a new realization of GEOID03 for the
CQ5984 ** epoch indicated which incorporates improved geoid heights for the
CQ5984 ** Southern Louisiana Subsidence area.
CQ5984 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03/).
CQ5984
CQ5984.The PID for the CORS ARP is AF9593.
CQ5984
CQ5984.The XYZ, and position/ellipsoidal ht. are equivalent.
CQ5984
CQ5984.The ellipsoidal height was determined by GPS observations
CQ5984.and is referenced to NAD 83.
CQ5984
CQ5984.The geoid height was determined by GEOID03.
CQ5984
CQ5984; North East Units Scale Factor Converg.
CQ5984;SPC LA S - 153,690.041 1,134,386.275 MT 0.99992799 +0 41 44.3
CQ5984
CQ5984! - Elev Factor x Scale Factor = Combined Factor
CQ5984!SPC LA S - 1.00000269 x 0.99992799 = 0.99993068
CQ5984
CQ5984 SUPERSEDED SURVEY CONTROL
CQ5984
CQ5984 NAD 83(CORS)- 29 52 45.04454(N) 089 56 31.48456(W) AD(2002.00) c
CQ5984 NAD 83(CORS)- 29 52 45.04420(N) 089 56 31.48520(W) AD(2002.00) c
CQ5984 ELLIP H (03/??/02) -17.08 (m) GP(2002.00) c c
CQ5984 NAD 83(CORS)- 29 52 45.04423(N) 089 56 31.48460(W) AD(1997.00) c
CQ5984 NAD 83(CORS)- 29 52 45.04423(N) 089 56 31.48460(W) AD(1996.00) c
CQ5984 ELLIP H (08/??/96) -17.08 (m) GP(1997.00) c c
CQ5984 ELLIP H (08/??/96) -17.08 (m) GP(1996.00) c c
CQ5984
CQ5984.Superseded values are not recommended for survey control.
CQ5984.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
CQ5984.See file dsdata.txt to determine how the superseded data were derived.
CQ5984
CQ5984_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU1583709034(NAD 83)
CQ5984_MARKER: STATION IS THE L1 PHASE CENTER OF THE GPS ANTENNA
CQ5984
CQ5984 STATION DESCRIPTION
CQ5984
CQ5984'DESCRIBED BY NATIONAL GEODETIC SURVEY
CQ5984'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
CQ5984'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
CQ5984'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
CQ5984' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
CQ5984' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

AJ7833 **
AJ7833 CORS   - This is a GPS Continuously Operating Reference Station.
AJ7833 DESIGNATION - HAMMOND CORS ARP
AJ7833 CORS_ID   - HAMM
AJ7833 PID   - AJ7833
AJ7833 STATE/COUNTY- LA/TANGIPAHOA
AJ7833 USGS QUAD - HAMMOND (1994)
AJ7833
AJ7833   *CURRENT SURVEY CONTROL
AJ7833 ____
AJ7833* NAD 83(CORS)- 30 30 47.05159(N)   090 28 03.42873(W)   ADJUSTED
AJ7833* NAVD 88   -
AJ7833 ____
AJ7833 EPOCH DATE -   2002.00
AJ7833 X   -   -44,884.481 (meters)   COMP
AJ7833 Y   - -5,499,420.937 (meters)   COMP
AJ7833 Z   -   3,219,506.603 (meters)   COMP
AJ7833 ELLIP HEIGHT-   7.27 (meters)   (03/??/02) GPS OBS
AJ7833 GEOID HEIGHT-   -27.00 (meters)   GEOID03
AJ7833
AJ7833 HORZ ORDER - SPECIAL (CORS)
AJ7833 ELLP ORDER - SPECIAL (CORS)
AJ7833
AJ7833.ITRF positions are available for this station.
AJ7833.The coordinates were established by GPS observations
AJ7833.and adjusted by the National Geodetic Survey in March 2002.
AJ7833.The coordinates are valid at the epoch date displayed above.
AJ7833.The epoch date for horizontal control is a decimal equivalence
AJ7833.of Year/Month/Day.
AJ7833
AJ7833
AJ7833.The PID for the CORS L1 Phase Center is AJ7834.
AJ7833
AJ7833.The XYZ, and position/ellipsoidal ht. are equivalent.
AJ7833
AJ7833.The ellipsoidal height was determined by GPS observations
AJ7833.and is referenced to NAD 83.
AJ7833
AJ7833.The geoid height was determined by GEOID03.
AJ7833
AJ7833;   North   East   Units Scale Factor Converg.
AJ7833;SPC LA S   -   223,454.102 1,083,092.874   MT 0.99996557   +0 25 58.3
AJ7833
AJ7833!   - Elev Factor x Scale Factor =   Combined Factor
AJ7833!SPC LA S   -   0.99999886 x   0.99996557 =   0.99996443
AJ7833
AJ7833   SUPERSEDED SURVEY CONTROL
AJ7833
AJ7833 NAD 83(CORS)- 30 30 47.05159(N)   090 28 03.42873(W) AD(1997.00) c
AJ7833 ELLIP H (02/??/02)   7.27   (m)   GP(1997.00) c c
AJ7833
AJ7833.Superseded values are not recommended for survey control.
AJ7833.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ7833.See file dsdata.txt to determine how the superseded data were derived.
AJ7833
AJ7833_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYP4301578368(NAD 83)

AJ7833_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
AJ7833
AJ7833 STATION DESCRIPTION
AJ7833
AJ7833'DESCRIBED BY NATIONAL GEODETIC SURVEY 2002
AJ7833'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
AJ7833'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
AJ7833'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
AJ7833' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
AJ7833' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

APPENDIX J

Phase 1b NOAA Tidal Gage GPS Surveys
(Southern Region)

Phase 1b NOAA Tidal Gage GPS Surveys
(Southern Region)

Fully Constrained GPS Network Results

Coordinate System: US State Plane 1983
Zone: Louisiana South 1702
Datum: NAD 1983
Geoid Model: GEOID03
Units: meters

Point Name	Latitude	Longitude	Northing	Easting	Elev	Ellip Ht
149 C	29°34'19.21112"N	89°48'13.15395"W	119815.803	1148211.009	0.578	-24.354
REG 2	29°50'40.71915"N	89°45'32.43077"W	150091.312	1152121.263	1.520	-24.370
160 C	29°33'33.83238"N	89°53'05.03628"W	118316.663	1140373.393	0.191	-24.746
BTID	29°40'02.04347"N	90°06'33.55593"W	130014.797	1118483.357	-0.025	-25.425
MIL 2	29°28'05.74368"N	89°40'53.72991"W	108482.520	1160202.601	-0.150	-24.694
A 152	29°37'28.58854"N	89°54'10.66915"W	125521.799	1138516.597	0.670	-24.457
179 B	29°29'46.57419"N	90°01'32.56802"W	111155.787	1126792.415	0.811	-24.057
G 358	29°27'38.86104"N	90°18'31.16588"W	106944.590	1099392.966	0.820	-24.185
houm	29°35'32.10988"N	90°43'24.98886"W	121228.150	1059065.965	13.861	-11.507
covg	30°28'33.26965"N	90°05'43.92326"W	219662.521	1118849.594	22.195	-4.803
eng 2	29°52'45.04451"N	89°56'31.48474"W	153690.042	1134386.275	8.577	-17.443

Datasheets

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30

1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006

AT0200 **********

AT0200 HT_MOD - This is a Louisiana Height Modernization Survey Station.

AT0200 DESIGNATION - MILAN 2

AT0200 PID - AT0200

AT0200 STATE/COUNTY- LA/PLAQUEMINES

AT0200 USGS QUAD - PORT SULPHUR (1993)

AT0200

AT0200 *CURRENT SURVEY CONTROL

AT0200 _____

AT0200* NAD 83(1992)- 29 28 05.74368(N) 089 40 53.72992(W) ADJUSTED

AT0200* NAVD 88 - -0.15 **(meters) -0.5 **(feet) GPS OBS(2004.65)

AT0200 **This station is located in a subsidence area (see below).

AT0200 _____

AT0200 EPOCH DATE - 2004.65

AT0200 X - 30,884.220 (meters) COMP

AT0200 Y - -5,557,383.217 (meters) COMP

AT0200 Z - 3,119,180.322 (meters) COMP

AT0200 LAPLACE CORR- 0.43 (seconds) DEFLEC99

AT0200 ELLIP HEIGHT- -24.53 (meters) (06/22/05) GPS OBS

AT0200 GEOID HEIGHT- -24.39 (meters) GEOID03

AT0200 DYNAMIC HT - -0.15 (meters) -0.5 (feet) COMP

AT0200 MODELED GRAV- 979,306.4 (mgal) NAVD 88

AT0200

AT0200 HORZ ORDER - B

AT0200 VERT ORDER - THIRD (See Below)

AT0200 ELLP ORDER - FOURTH CLASS I

AT0200

AT0200.The horizontal coordinates were established by GPS observations

AT0200.and adjusted by the National Geodetic Survey in June 2005.

AT0200.The horizontal coordinates are valid at the epoch date displayed above.

AT0200.The epoch date for horizontal control is a decimal equivalence

AT0200.of Year/Month/Day.

AT0200

AT0200 ** Due to the variability of land subsidence, the orthometric, ellipsoid,

AT0200 ** and geoid heights are valid at the date of observation. These heights

AT0200 ** must always be validated when used as control.

AT0200 ** The orthometric height was determined by GPS observations using

AT0200 ** precise GPS observation and processing techniques and a new

AT0200 ** realization of GEOID03. It supersedes the leveled height previously

AT0200 ** determined for this station.

AT0200 ** The geoid height was determined by a new realization of GEOID03 for the

AT0200 ** epoch indicated which incorporates improved geoid heights for the

AT0200 ** Southern Louisiana Subsidence area.

AT0200 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).

AT0200.The orthometric height was determined by GPS observations and a

AT0200.high-resolution geoid model using precise GPS observation and

AT0200.processing techniques. It supersedes the leveled height previously

AT0200.determined for this station.

AT0200.WARNING-GPS observations at this control monument resulted in a GPS

AT0200.derived orthometric height which differed from the leveled height by

AT0200.more than one decimeter (0.1 meter).

AT0200.The vertical order pertains to the first NAVD 88 superseded value.

AT0200

AT0200.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AT0200

AT0200.The Laplace correction was computed from DEFLEC99 derived deflections.

AT0200

AT0200.The ellipsoidal height was determined by GPS observations

AT0200.and is referenced to NAD 83.

AT0200
AT0200.The geoid height was determined by GEOID03.
AT0200
AT0200.The dynamic height is computed by dividing the NAVD 88
AT0200.geopotential number by the normal gravity value computed on the
AT0200.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AT0200.degrees latitude (g = 980.6199 gals.).
AT0200
AT0200.The modeled gravity was interpolated from observed gravity values.
AT0200
AT0200; North East Units Scale Factor Converg.
AT0200;SPC LA S - 108,482.520 1,160,202.601 MT 0.99996865 +0 49 33.2
AT0200;UTM 16 - 3,262,861.970 239,949.682 MT 1.00043452 -1 19 11.7
AT0200
AT0200! - Elev Factor x Scale Factor = Combined Factor
AT0200!SPC LA S - 1.00000385 x 0.99996865 = 0.99997250
AT0200!UTM 16 - 1.00000385 x 1.00043452 = 1.00043837
AT0200
AT0200: Primary Azimuth Mark Grid Az
AT0200:SPC LA S - MILAN 2 AZ MK 322 05 29.7
AT0200:UTM 16 - MILAN 2 AZ MK 324 14 14.6
AT0200
AT0200|----------|
AT0200| PID Reference Object Distance Geod. Az |
AT0200| dddmmss.s |
AT0200| AT0202 MILAN 2 RM 1 39.715 METERS 13301 |
AT0200| AT0201 MILAN 2 RM 2 27.150 METERS 17659 |
AT0200| AT1151 PORT SULPHUR FREEPORT CO STACK APPROX. 0.7 KM 2490755.2 |
AT0200| AT1157 FREEPORT SULPHUR CO WATER TANK APPROX. 0.9 KM 2941510.4 |
AT0200| DD7445 MILAN 2 AZ MK 3225502.9 |
AT0200|----------|
AT0200
AT0200 SUPERSEDED SURVEY CONTROL
AT0200
AT0200 NAD 83(1992)- 29 28 05.73772(N) 089 40 53.72090(W) AD( ) 2
AT0200 NAD 83(1986)- 29 28 05.74729(N) 089 40 53.72727(W) AD( ) 2
AT0200 NAD 27 - 29 28 04.96471(N) 089 40 53.50130(W) AD( ) 2
AT0200 NAVD 88 (02/14/94) 0.005 (m) 0.02 (f) READJUSTED 3
AT0200 NAVD 88 (06/15/91) 0.061 (m) 0.20 (f) UNKNOWN 1 1
AT0200 NGVD 29 (??/??/??) 0.092 (m) 0.30 (f) ADJUSTED 1 1
AT0200
AT0200.Superseded values are not recommended for survey control.
AT0200.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AT0200.See file dsdata.txt to determine how the superseded data were derived.
AT0200
AT0200_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBT3995062862(NAD 83)
AT0200_MARKER: DS = TRIANGULATION STATION DISK
AT0200_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AT0200_SP_SET: SET IN TOP OF CONCRETE MONUMENT
AT0200_STAMPING: MILAN 2 1966
AT0200_MARK LOGO: CGS
AT0200_MAGNETIC: N = NO MAGNETIC MATERIAL
AT0200_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AT0200+STABILITY: SURFACE MOTION
AT0200_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AT0200+SATELLITE: SATELLITE OBSERVATIONS - October 07, 2005
AT0200
AT0200 HISTORY - Date Condition Report By
AT0200 HISTORY - 1966 MONUMENTED CGS
AT0200 HISTORY - 1971 GOOD USGS
AT0200 HISTORY - 1971 GOOD NGS
AT0200 HISTORY - 1984 GOOD NGS

AT0200 HISTORY - 20040419 GOOD NGS
AT0200 HISTORY - 20051007 GOOD NGS
AT0200
AT0200 STATION DESCRIPTION
AT0200
AT0200'DESCRIBED BY COAST AND GEODETIC SURVEY 1966 (LMC)
AT0200'STATION IS LOCATED IN PORT SULPHUR, IS IN THE SOUTHEASTERLY CORNER
AT0200'OF GOLF COURSE
AT0200'BELONGING TO FREEPORT SULPHUR COMPANY AND JUST NORTHWEST
AT0200'OF DELTA BANK AND TRUST COMPANY
AT0200'BUILDING.
AT0200'
AT0200'TO REACH FROM THE FREEPORT SULPHUR COMPANY MAIN OFFICE IN PORT
AT0200'SULPHUR, GO
AT0200'SOUTHEAST ON STATE HIGHWAY 23 FOR 0.9 MILE TO SIDE ROAD
AT0200'RIGHT AND STATION AS
AT0200'DESCRIBED.
AT0200'
AT0200'STATION MARK, A STANDARD DISK STAMPED MILAN 2 1966, IS SET IN
AT0200'THE TOP OF A
AT0200'CONCRETE CYLINDER WHICH IS SET FLUSH WITH GROUND. THE MARK
AT0200'IS 88 FEET SOUTHWEST OF CENTER
AT0200'OF STATE HIGHWAY 23, 52.5 FEET SOUTH
AT0200'OF THE SOUTHEAST CORNER OF ELEVATED GOLF GREEN,
AT0200'47.5 FEET WEST OF TREE,
AT0200'51 FEET NORTHWEST OF CENTER OF ROAD AND 28 FEET NORTHWEST OF
AT0200'FENCE.
AT0200'
AT0200'REFERENCE MARK 1, A STANDARD DISK STAMPED MILAN 2 NO 1 1966, IS
AT0200'SET IN THE TOP OF
AT0200'A CONCRETE CYLINDER WHICH IS SET FLUSH. THE MARK IS
AT0200'34 FEET SOUTHEAST OF CENTER OF ROAD,
AT0200'5 FEET WEST OF THE NORTHWEST
AT0200'CORNER OF DELTA BANK AND LOAN BUILDING AND 3.5 FEET
AT0200'NORTHWEST OF THE
AT0200'NORTHWEST SIDE OF BANK BUILDING.
AT0200'
AT0200'REFERENCE MARK 2, A STANDARD DISK STAMPED MILAN 2 NO 2 1966, IS
AT0200'SET IN THE TOP OF
AT0200'A CONCRETE CYLINDER WHICH IS SET FLUSH WITH THE
AT0200'GROUND. THE MARK IS 36 FEET
AT0200'SOUTHEAST OF CENTER OF ROAD, 20 FEET NORTHEAST
AT0200'OF CENTER OF REAR DRIVEWAY AND 6 FEET NORTH OF
AT0200'THE NORTHWEST
AT0200'CORNER OF DELTA BANK AND TRUST BUILDING.
AT0200'
AT0200'AZIMUTH MARK, A STANDARD DISK STAMPED MILAN 2 1966, IS SET IN
AT0200'THE TOP OF A
AT0200'CONCRETE CYLINDER WHICH IS PROJECTING ABOUT 2 INCHES. THE
AT0200'MARK IS 88.5 FEET NORTHEAST OF
AT0200'CENTER OF STATE HIGHWAY 23, 44.5 FEET
AT0200'SOUTH OF THE SOUTH PIPE OF A GROUP OF PIPES, 36
AT0200'FEET EAST OF POWER
AT0200'POLE, 15 FEET SOUTHWEST OF CENTER OF LEVEE AND 2.3 FEET SOUTHEAST
AT0200'OF WITNESS POST.
AT0200'
AT0200'TO REACH AZIMUTH MARK FROM STATION, GO NORTHWEST ON STATE HIGHWAY
AT0200'23 FOR 0.3 MILE TO
AT0200'WHERE PIPES CROSS OVER ROAD AND AZIMUTH MARK ON RIGHT.
AT0200'
AT0200'DISTANCE BETWEEN REFERENCE MARK 1 AND 2 IS 90.57 FEET OR 27.603
AT0200'METERS.

AT0200'
AT0200'HEIGHT OF LIGHT ABOVE STATION MARK 30 METERS.
AT0200
AT0200 STATION RECOVERY (1971)
AT0200
AT0200'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1971 (JDS)
AT0200'MILAN 2 AND RM 1 AND 2 FOUND IN GOOD CONDITION. AZ. MK. NOT FOUND.
AT0200'DISTANCES AND DIRECTIONS CHECKED OK. ORIGINAL DESCRIPTION IS
AT0200'ADEQUATE.
AT0200
AT0200 STATION RECOVERY (1971)
AT0200
AT0200'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1971
AT0200'1.1 MI SE FROM PORT SULPHUR.
AT0200'ABOUT 1.1 MILES SOUTHEAST ALONG STATE HIGHWAY 23 FROM THE FIRE STATION
AT0200'AND CEMETERY AT PORT SULPHUR, NEAR THE EAST CORNER OF A GOLF COURSE,
AT0200'88 FEET SOUTHWEST OF THE CENTER LINE OF THE HIGHWAY, 53 FEET NORTHWEST
AT0200'OF THE CENTER LINE OF A DRIVEWAY WHICH LEADS SOUTHWEST ALONG THE
AT0200'NORTHWEST SIDE OF THE DELTA STATE BANK AND TRUST COMPANY BUILDING, 59
AT0200'FEET SOUTHWEST OF A FIRE HYDRANT, 47 1/2 FEET WEST OF A 12-INCH OAK
AT0200'TREE, 54 1/2 FEET NORTH OF A 14-INCH OAK TREE, 28 FEET NORTHWEST OF A
AT0200'ROW OF CONCRETE FILLED 3-INCH METAL PIPES THAT PROJECT 2 FEET, ABOUT
AT0200'LEVEL WITH THE DRIVEWAY, ABOUT 1 FOOT BELOW THE LEVEL OF THE HIGHWAY,
AT0200'AND SET IN THE TOP OF A CONCRETE POST WHICH IS 0.1 FOOT BELOW THE
AT0200'SURFACE OF THE GROUND.
AT0200
AT0200 STATION RECOVERY (1984)
AT0200
AT0200'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1984
AT0200'RECOVERED IN GOOD CONDITION.
AT0200
AT0200 STATION RECOVERY (2004)
AT0200
AT0200'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AT0200'THE STATION IS LOCATED IN PORT SULPER NEAR THE SOUTHEAST CORNER OF THE
AT0200'PORT SULPHER GOLF COURSE. OWNERSHIP--PLAQUEMINES PARISH RECREATIONAL
AT0200'DEPARTMENT.
AT0200'
AT0200'TO REACH THE STATION FROM THE POST OFFICE IN PORT SULPHER GO SOUTHERLY
AT0200'FOR 3.2 MI ON STATE HIGHWAY 23 TO THE STATION ON THE RIGHT NEAR THE
AT0200'SOUTEAST CORNER OF THE PORT SULPHER GOLF COURSE, JUST BEFORE REACHING
AT0200'A GRAVEL ENTRANCE WAY TO THE REGIONS BANK PARKING LOT ON THE RIGHT.
AT0200'
AT0200'THE STATION IS LOCATED 22.8 M SOUTHWESTR OF THE SOUTHWEST EDGE OF THE
AT0200'HIGHWAY, 19.1 M SOUTH OF THE SOUTHERN MOST 1 OF 2 SUPPORT POSTS FOR A
AT0200'GOLF COURSE SIGN, 10.0 M NORTH OF THE NORTHEAST END OF A CHAIN LINK
AT0200'FENCE, 9.6 M NORTHWEST OF THE NORTHWEST EDGE OF THE REGIONS BANK
AT0200'PARKING LOT, AND ABOUT 0.3 M BELOW THE LEVEL OF THE HIGHWAY.
AT0200
AT0200 STATION RECOVERY (2005)
AT0200
AT0200'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (KLF)
AT0200'RECOVERED AS DESCRIBED WITH THE FOLLOWING CHANGES. 0.65 M SE OF A
AT0200'METAL POST WITH WITNESS SIGN ATTACHED. NOTE--THE GOLF COURSE SIGN
AT0200'PREVIOUSLY REFERENCED TO IS MISSING BUT THE SIGN POST IS INTACT.
AT0200'NOTE--THE BANK BUILDING PREVIOUSLY REFERENCED TO WAS SEVERELY DAMAGED
AT0200'BY HURRICANE KATRINA.

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
AT0407 ***
AT0407 HT_MOD - This is a Louisiana Height Modernization Survey Station.
AT0407 DESIGNATION - A 152
AT0407 PID - AT0407
AT0407 STATE/COUNTY- LA/PLAQUEMINES
AT0407 USGS QUAD - LAKE LAURIER (1992)
AT0407
AT0407 *CURRENT SURVEY CONTROL
AT0407 _____
AT0407* NAD 83(1992)- 29 37 28.58854(N) 089 54 10.66914(W) ADJUSTED
AT0407* NAVD 88 - 0.67 **(meters) 2.2 **(feet) GPS OBS(2004.65)
AT0407 **This station is located in a subsidence area (see below).
AT0407 _____
AT0407 EPOCH DATE - 2004.65
AT0407 X - 9,397.673 (meters) COMP
AT0407 Y - -5,548,915.372 (meters) COMP
AT0407 Z - 3,134,256.848 (meters) COMP
AT0407 LAPLACE CORR- 0.46 (seconds) DEFLEC99
AT0407 ELLIP HEIGHT- -24.25 (meters) (06/22/05) GPS OBS
AT0407 GEOID HEIGHT- -24.93 (meters) GEOID03
AT0407 DYNAMIC HT - 0.67 (meters) 2.2 (feet) COMP
AT0407 MODELED GRAV- 979,304.9 (mgal) NAVD 88
AT0407
AT0407 HORZ ORDER - B
AT0407 VERT ORDER - THIRD (See Below)
AT0407 ELLP ORDER - FOURTH CLASS I
AT0407
AT0407.The horizontal coordinates were established by GPS observations
AT0407.and adjusted by the National Geodetic Survey in June 2005.
AT0407.The horizontal coordinates are valid at the epoch date displayed above.
AT0407.The epoch date for horizontal control is a decimal equivalence
AT0407.of Year/Month/Day.
AT0407
AT0407 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
AT0407 ** and geoid heights are valid at the date of observation. These heights
AT0407 ** must always be validated when used as control.
AT0407 ** The orthometric height was determined by GPS observations using
AT0407 ** precise GPS observation and processing techniques and a new
AT0407 ** realization of GEOID03. It supersedes the leveled height previously
AT0407 ** determined for this station.
AT0407 ** The geoid height was determined by a new realization of GEOID03 for the
AT0407 ** epoch indicated which incorporates improved geoid heights for the
AT0407 ** Southern Louisiana Subsidence area.
AT0407 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
AT0407.The orthometric height was determined by GPS observations and a
AT0407.high-resolution geoid model using precise GPS observation and
AT0407.processing techniques. It supersedes the leveled height previously
AT0407.determined for this station.
AT0407.WARNING-GPS observations at this control monument resulted in a GPS
AT0407.derived orthometric height which differed from the leveled height by
AT0407.more than one decimeter (0.1 meter).
AT0407.The vertical order pertains to the first NAVD 88 superseded value.
AT0407
AT0407.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AT0407
AT0407.The Laplace correction was computed from DEFLEC99 derived deflections.
AT0407
AT0407.The ellipsoidal height was determined by GPS observations
AT0407.and is referenced to NAD 83.

AT0407
AT0407.The geoid height was determined by GEOID03.
AT0407
AT0407.The dynamic height is computed by dividing the NAVD 88
AT0407.geopotential number by the normal gravity value computed on the
AT0407.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AT0407.degrees latitude (g = 980.6199 gals.).
AT0407
AT0407.The modeled gravity was interpolated from observed gravity values.
AT0407
AT0407; North East Units Scale Factor Converg.
AT0407;SPC LA S - 125,521.799 1,138,516.597 MT 0.99994717 +0 42 54.7
AT0407;UTM 16 - 3,280,711.979 218,906.187 MT 1.00057504 -1 26 09.3
AT0407
AT0407! - Elev Factor x Scale Factor = Combined Factor
AT0407!SPC LA S - 1.00000381 x 0.99994717 = 0.99995098
AT0407!UTM 16 - 1.00000381 x 1.00057504 = 1.00057885
AT0407
AT0407 SUPERSEDED SURVEY CONTROL
AT0407
AT0407 NAVD 88 (02/14/94) 0.870 (m) 2.85 (f) READJUSTED 3
AT0407 NAVD 88 (06/15/91) 0.924 (m) 3.03 (f) UNKNOWN 1 1
AT0407 NGVD 29 (??/??/??) 0.962 (m) 3.16 (f) ADJUSTED 1 1
AT0407
AT0407.Superseded values are not recommended for survey control.
AT0407.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AT0407.See file dsdata.txt to determine how the superseded data were derived.
AT0407
AT0407_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBT1890680712(NAD 83)
AT0407_MARKER: DB = BENCH MARK DISK
AT0407_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AT0407_SP_SET: SET IN TOP OF CONCRETE MONUMENT
AT0407_STAMPING: A 152 1951
AT0407_MARK LOGO: CGS
AT0407_MAGNETIC: N = NO MAGNETIC MATERIAL
AT0407_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AT0407+STABILITY: SURFACE MOTION
AT0407_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AT0407+SATELLITE: SATELLITE OBSERVATIONS - October 06, 2005
AT0407
AT0407 HISTORY - Date Condition Report By
AT0407 HISTORY - 1951 MONUMENTED CGS
AT0407 HISTORY - 1971 GOOD NGS
AT0407 HISTORY - 1984 GOOD NGS
AT0407 HISTORY - 20030608 GOOD NGS
AT0407 HISTORY - 20040419 GOOD NGS
AT0407 HISTORY - 20051006 GOOD NGS
AT0407
AT0407 STATION DESCRIPTION
AT0407
AT0407'DESCRIBED BY NATIONAL GEODETIC SURVEY 1971
AT0407'7.2 MI NW FROM POINTE A LA HACHE.
AT0407'ABOUT 7.2 MILES NORTHWEST ALONG STATE HIGHWAY 39 FROM THE COURTHOUSE
AT0407'AT POINTE A LA HACHE, 2.15 MILES SOUTHEAST OF THE PHOENIX HIGH SCHOOL,
AT0407'33 FEET NORTHEAST OF THE CENTER LINE OF THE HIGHWAY, 54.0 FEET WEST OF
AT0407'THE WEST CORNER OF A TWO-STORY FRAME HOUSE, 36 FEET NORTHWEST OF THE
AT0407'CENTER LINE OF A DRIVEWAY, 24 FEET SOUTHEAST OF THE CENTER LINE OF A
AT0407'DRIVEWAY, 6 FEET EAST OF A POWER POLE, 5.5 FEET EAST OF A METAL
AT0407'WITNESS POST, ABOUT LEVEL WITH THE HIGHWAY, AND SET IN THE TOP OF A
AT0407'CONCRETE POST WHICH PROJECTS 2 INCHES. SEC 44, T 16S, R 13E.
AT0407
AT0407 STATION RECOVERY (1984)

AT0407
AT0407'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1984
AT0407'RECOVERED IN GOOD CONDITION.
AT0407
AT0407 STATION RECOVERY (2003)
AT0407
AT0407'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2003
AT0407'NOW 1 FT SE OF STEEL POST (NO SIGN), AND ABOUT 3 FT SE OF NEW POLE
AT0407'WITH LIGHT AND TRANSFORMER. OLD POLE WAS CUT OFF ABOUT 15 FEET UP.
AT0407
AT0407 STATION RECOVERY (2004)
AT0407
AT0407'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AT0407'THE STATION IS LOCATED ABOUT 2.0 MI SOUTH OF PHOENIX ON PRIVATE
AT0407'PROPERTY.
AT0407'
AT0407'TO REACH THE STATION FROM THE PHOENIX HIGH SCHOOL, IN PHOENIX, GO
AT0407'SOUTHERLY FOR 2.1 MI ON PARISH ROAD 15 TO THE STATION ON THE RIGHT
AT0407'JUST BEFORE REACHING A LARGE RAISED WOOD FRAME HOUSE ON THE LEFT.
AT0407'
AT0407'THE STATION IS LOCATED 16.5 M WEST OF THE WEST CORNER OF THE FRONT
AT0407'PORCH OF THE HOUSE, 10.6 M SOUTHEAST OF THE CENTER OF THE ROAD, 1.2 M
AT0407'SOUHT-SOUTHEST OF A WOODEN UTILITY POLE WITH METER, 0.4 M SOUTHWEST
AT0407'OF A METAL POST, AND 0.3 M BELOW THE LEVEL OF THE ROAD.
AT0407
AT0407 STATION RECOVERY (2005)
AT0407
AT0407'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (KLF)
AT0407'RECOVERED AS DESCRIBED

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
AT0804 **********
AT0804 HT_MOD - This is a Louisiana Height Modernization Survey Station.
AT0804 FBN - This is a Federal Base Network Control Station.
AT0804 DESIGNATION - REGGIO 2
AT0804 PID - AT0804
AT0804 STATE/COUNTY- LA/ST BERNARD
AT0804 USGS QUAD - DELACROIX (1994)
AT0804
AT0804 *CURRENT SURVEY CONTROL
AT0804 _____
AT0804* NAD 83(1992)- 29 50 40.71916(N) 089 45 32.43079(W) ADJUSTED
AT0804* NAVD 88 - 1.52 **(meters) 5.0 **(feet) GPS OBS(2004.65)
AT0804 **This station is located in a subsidence area (see below).
AT0804 _____
AT0804 EPOCH DATE - 2004.65
AT0804 X - 23,288.344 (meters) COMP
AT0804 Y - -5,536,777.168 (meters) COMP
AT0804 Z - 3,155,435.922 (meters) COMP
AT0804 LAPLACE CORR- -0.03 (seconds) DEFLEC99
AT0804 ELLIP HEIGHT- -24.15 (meters) (06/22/05) GPS OBS
AT0804 GEOID HEIGHT- -25.68 (meters) GEOID03
AT0804 OBS GRAVITY - 979,309.8 (mgal) GRAV_OBS
AT0804
AT0804 HORZ ORDER - B
AT0804 ELLP ORDER - FOURTH CLASS I
AT0804
AT0804.The horizontal coordinates were established by GPS observations
AT0804.and adjusted by the National Geodetic Survey in June 2005.
AT0804.The horizontal coordinates are valid at the epoch date displayed above.
AT0804.The epoch date for horizontal control is a decimal equivalence
AT0804.of Year/Month/Day.
AT0804
AT0804 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
AT0804 ** and geoid heights are valid at the date of observation. These heights
AT0804 ** must always be validated when used as control.
AT0804 ** The orthometric height was determined by GPS observations using
AT0804 ** precise GPS observation and processing techniques and a new
AT0804 ** realization of GEOID03. It supersedes the leveled height previously
AT0804 ** determined for this station.
AT0804 ** The geoid height was determined by a new realization of GEOID03 for the
AT0804 ** epoch indicated which incorporates improved geoid heights for the
AT0804 ** Southern Louisiana Subsidence area.
AT0804 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
AT0804.The orthometric height was determined by GPS observations and a
AT0804.high-resolution geoid model using precise GPS observation and
AT0804.processing techniques. It supersedes the leveled height previously
AT0804.determined for this station.
AT0804
AT0804.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AT0804
AT0804.The Laplace correction was computed from DEFLEC99 derived deflections.
AT0804
AT0804.The ellipsoidal height was determined by GPS observations
AT0804.and is referenced to NAD 83.
AT0804
AT0804.The geoid height was determined by GEOID03.
AT0804.The observed gravity was obtained from relative gravimeter ties
AT0804.to the IGSN71 gravity network.
AT0804

AT0804;   North   East   Units Scale Factor Converg.
AT0804;SPC LA S   -   150,091.312 1,152,121.263   MT 0.99992944   +0 47 13.9
AT0804;UTM 16   - 3,304,766.395   233,434.144   MT 1.00047681   -1 22 25.8
AT0804
AT0804!   - Elev Factor x Scale Factor =   Combined Factor
AT0804!SPC LA S   -   1.00000379 x   0.99992944 =   0.99993323
AT0804!UTM 16   -   1.00000379 x   1.00047681 =   1.00048060
AT0804
AT0804   SUPERSEDED SURVEY CONTROL
AT0804
AT0804 NAD 83(1992)- 29 50 40.71916(N)   089 45 32.43101(W) AD(   ) B
AT0804 ELLIP H (12/29/04) -24.13   (m)   GP(   ) 4 1
AT0804 ELLIP H (06/20/00) -24.12   (m)   GP(   ) 3 1
AT0804 ELLIP H (01/21/93) -24.10   (m)   GP(   ) 4 2
AT0804 NAD 83(1992)- 29 50 40.71874(N)   089 45 32.43093(W) AD(   ) A
AT0804 ELLIP H (09/04/92) -24.10   (m)   GP(   ) 3 1
AT0804 NAD 83(1986)- 29 50 40.73696(N)   089 45 32.43028(W) AD(   ) 1
AT0804 NAD 27   - 29 50 39.98989(N)   089 45 32.20535(W) AD(   ) 1
AT0804 NAVD 88 (02/14/94)   1.714 (m)   5.62   (f) READJUSTED 3
AT0804 NGVD 29 (02/23/90)   1.82   (m)   6.0   (f) LEVELING   3
AT0804
AT0804.Superseded values are not recommended for survey control.
AT0804.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AT0804.See file dsdata.txt to determine how the superseded data were derived.
AT0804
AT0804_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU3343404766(NAD 83)
AT0804_MARKER: F = FLANGE-ENCASED ROD
AT0804_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AT0804_SP_SET: STAINLESS STEEL ROD
AT0804_STAMPING: REGGIO 2 1987
AT0804_MARK LOGO: NGS
AT0804_PROJECTION: FLUSH
AT0804_MAGNETIC: N = NO MAGNETIC MATERIAL
AT0804_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AT0804_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AT0804+SATELLITE: SATELLITE OBSERVATIONS - April 19, 2004
AT0804_ROD/PIPE-DEPTH: 20.7 meters
AT0804_SLEEVE-DEPTH : 1 meters
AT0804
AT0804 HISTORY   - Date   Condition   Report By
AT0804 HISTORY   - 1987   MONUMENTED   LADTD
AT0804 HISTORY   - 1988   GOOD   BUN-Y
AT0804 HISTORY   - 19880920 GOOD   LADTD
AT0804 HISTORY   - 19890119 GOOD
AT0804 HISTORY   - 19910903 GOOD   LADTD
AT0804 HISTORY   - 19920316 GOOD
AT0804 HISTORY   - 19920330 GOOD
AT0804 HISTORY   - 19940620 GOOD   LADTD
AT0804 HISTORY   - 19960215 GOOD   NGS
AT0804 HISTORY   - 19980217 GOOD   NGS
AT0804 HISTORY   - 19980311 GOOD   NGS
AT0804 HISTORY   - 20030402 GOOD   3001
AT0804 HISTORY   - 20030820 GOOD   INDIV
AT0804 HISTORY   - 20040419 GOOD   NGS
AT0804
AT0804   STATION DESCRIPTION
AT0804
AT0804'DESCRIBED BY LA TRANSP AND DEV 1987 (TLH)
AT0804'THE STATION IS LOCATED IN THE NORTHEAST END OF REGGIO ON STATE
AT0804'HIGHWAY 46.
AT0804'OWNERSHIP--LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT.
AT0804'

AT0804'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 300 AND 46
AT0804'IN REGGIO GO NORTHWEST FOR 0.46 KM (0.3 MI) ON HIGHWAY 46 TO THE
AT0804'FAR END OF THE BRIDGE AND THE STATION ON THE RIGHT.
AT0804'
AT0804'THE STATION IS A STANDARD VERTICAL DATUM POINT ATTACHED TO A
AT0804'STAINLESS STEEL ROD ACCESSED THROUGH A LOGO CAP
AT0804'STAMPED---REGGIO 2 1987---,
AT0804'7.6 METERS (24.9 FT) NORTHEAST FROM THE CENTER OF THE NORTH BOUND
AT0804'LANES OF THE HIGHWAY,
AT0804'1.1 METERS (5.6 FT) NORTH FROM THE NORTH END OF THE BANNISTER,
AT0804'0.7 METERS (2.3 FT) NORTHEAST FROM A BRIDGE CURB,
AT0804'0.5 METERS (1.6 FT) WEST FROM THE NORTH CORNER OF THE ABUTMENT WING
AT0804'AND
AT0804'1.2 METERS (4 FT) NORTH FROM A FIBERGLASS WITNESS POST.
AT0804
AT0804 STATION RECOVERY (1988)
AT0804
AT0804'RECOVERY NOTE BY BURK AND N-Y 1988
AT0804'0.5 KM (0.30 MI) NW FROM REGGIO.
AT0804'LOCATED 0.48 KM (0.30 MI) NORTHWEST ALONG STATE HIGHWAY 46 FROM THE
AT0804'CROSSROADS AT REGGIO, TO THE WEST END OF THE BRIDGE AND THE MARK ON
AT0804'THE RIGHT. IT IS 7.62 M (25.0 FT) NORTH OF THE CENTERLINE OF THE
AT0804'EAST-BOUND LANE, 1.07 M (3.5 FT) NORTHWEST OF THE NORTHWEST END OF
AT0804'THE BANNISTER, 0.67 M (2.2 FT) NORTHEAST OF THE BRIDGE CURB AND 0.46
AT0804'M (1.5 FT) FROM THE NORTH CORNER OF THE ABUTMENT WING. NOTE--ACCESS
AT0804'TO DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP,
AT0804'(THIS IS A 3-D GPS STATION MARK).
AT0804
AT0804 STATION RECOVERY (1988)
AT0804
AT0804'RECOVERY NOTE BY LA TRANSP AND DEV 1988
AT0804'THE STATION IS LOCATED IN THE NORTHWEST EDGE OF REGGIO ON STATE
AT0804'HIGHWAY 46. OWNERSHIP--LOUISIANA DEPARTMENT OF TRANSPORTATION AND
AT0804'DEVELOPMENT.
AT0804'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 300 AND 46 IN
AT0804'REGGIO GO NORTHWEST FOR 0.46 KM (0.30 MI) ON HIGHWAY 46 TO THE FAR END
AT0804'OF THE BRIDGE AND THE STATION ON THE RIGHT.
AT0804'THE STATION IS A STAINLESS STEEL ROD ACCESSED THROUGH A LOGO CAP, 7.6
AT0804'M (24.9 FT) NORTHEAST FROM THE CENTER OF THE NORTH BOUND LANES OF THE
AT0804'HIGHWAY, 1.1 M (3.6 FT) NORTH FROM THE NORTH END OF THE BANISTER, 0.7
AT0804'M (2.3 FT) NORTHEAST FROM A BRIDGE CURB, 0.5 M (1.6 FT) WEST FROM THE
AT0804'NORTH CORNER OF THE ABUTMENT WING AND 1.2 M (3.9 FT) NORTH FROM A
AT0804'FIBERGLASS WITNESS POST.
AT0804
AT0804 STATION RECOVERY (1989)
AT0804
AT0804'RECOVERED 1989
AT0804'RECOVERED IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (1991)
AT0804
AT0804'RECOVERY NOTE BY LA TRANSP AND DEV 1991
AT0804'THE STATION IS LOCATED IN THE NORTHEAST END OF REGGIO ON STATE HIGHWAY
AT0804'46. OWNERSHIP--LOUISIANA DEPARTMENT OF TRANSPORTATION AND
AT0804'DEVELOPMENT.
AT0804'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS 46 AND 300 IN
AT0804'REGGIO, GO NORTHWEST FOR 0.3 MI (0.5 KM) ON HIGHWAY 46 TO THE NORTH
AT0804'END OF A BRIDGE AND THE STATION SET ON THE RIGHT.
AT0804'THE STATION IS 25.0 FT (7.6 M) NORTHEAST FROM THE CENTER OF THE NORTH
AT0804'BOUND LANES OF THE HIGHWAY, 5.5 FT (1.7 M) NORTH FROM THE NORTH END
AT0804'OF THE BANNISTER, 2.0 FT (0.6 M) NORTHEAST FROM A BRIDGE CURB, 1.5 FT
AT0804'(0.5 M) WEST FROM THE NORTH CORNER OF THE NORTH BOUND BRIDGE

AT0804'ABUTMENT, 1.5 FT (0.5 M) NORTHWEST FROM A FIBERGLASS WITNESS POST,
AT0804'FLUSH WITH THE GROUND AND ABOUT LEVEL WITH THE HIGHWAY.
AT0804
AT0804 STATION RECOVERY (1992)
AT0804
AT0804'RECOVERED 1992
AT0804'RECOVERED IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (1992)
AT0804
AT0804'RECOVERED 1992
AT0804'RECOVERED IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (1994)
AT0804
AT0804'RECOVERY NOTE BY LA TRANSP AND DEV 1994 (SLC)
AT0804'RECOVERED AS DESCRIBED.
AT0804
AT0804 STATION RECOVERY (1996)
AT0804
AT0804'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1996 (ALG)
AT0804'RECOVERED AS DESCRIBED.
AT0804
AT0804 STATION RECOVERY (1998)
AT0804
AT0804'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (CSM)
AT0804'RECOVERED AS DESCRIBED. NOTE--THE PREVIOUS DESCRIPTION INCORRECTLY
AT0804'STATES THE ROD HAS NO SLEEVE.
AT0804
AT0804 STATION RECOVERY (1998)
AT0804
AT0804'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1998 (CSM)
AT0804'RECOVERED AS DESCRIBED. NOTE--THE PREVIOUS DESCRIPTION INCORRECTLY
AT0804'STATES THE ROD HAS NO SLEEVE.
AT0804
AT0804 STATION RECOVERY (2003)
AT0804
AT0804'RECOVERY NOTE BY 3001, INC 2003 (MH)
AT0804'THE STATION IS LOCATED NORTHWEST OF REGGIO ON LA HWY 46, 14.09 MILES
AT0804'SOUTHEAST OF INTERSECTION OF LA HWY 47 AND HWY 39 IN CHALMETTE, LA.
AT0804'6.95 MILES EAST SOUTHEAST OF INTERSECTION OF HWY 39 AND HWY 46 IN ST.
AT0804'BERNARD, 4.83 MILES WEST OF THE END OF HWY 46 IN SHELL BEACH.
AT0804'
AT0804'OWNERSHIP- LA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
AT0804'
AT0804'TO REACH THE STATION FROM THE INTERSECTION OF LA HWY 300 AND HWY 46 IN
AT0804'REGGIO HEAD NORTHWEST FOR 0.3 MILES ON HWY 46, TO THE NORTHEAST
AT0804'CORNER OF A BRIDGE AND THE MARK IS ON THE RIGHT.
AT0804'
AT0804'THE STATION IS 25.0 FT. NORTHEAST OF CENTERLINE OF NORTH BOUND LANES
AT0804'OF HWY, 3.6 FT. NORTH FROM NORTH END OF BRIDGE CONCRETE RAIL, 2.1 FT.
AT0804'NORTHEAST OF A CONCRETE CURB, 1.5 FT. NORTHWEST OF A CONCRETE
AT0804'ABUTMENT WING. STATION IS A STAINLESS STEEL ROD ACCESSED THROUGH A
AT0804'LOGO CAP STAMPED- REGGIO2 1987, FLUSH WITH TOP OF LOGO SLEEVE COVER
AT0804'MISSING OTHERWISE IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (2003)
AT0804
AT0804'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2003 (JCJ)
AT0804'RECOVERED IN GOOD CONDITION.
AT0804
AT0804 STATION RECOVERY (2004)

AT0804
AT0804'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AT0804'RECOVERED AS DESCRIBED

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
AT1392 **********
AT1392 TIDAL BM - This is a Tidal Bench Mark.
AT1392 DESIGNATION - 876 1602 C TIDAL
AT1392 PID - AT1392
AT1392 STATE/COUNTY- LA/PLAQUEMINES
AT1392 USGS QUAD - LAKE LAURIER (1992)
AT1392
AT1392 *CURRENT SURVEY CONTROL
AT1392 _____
AT1392* NAD 83(1992)- 29 33 33.83137(N) 089 53 05.03563(W) ADJUSTED
AT1392* NAVD 88 - 0.5 **(meters) 2. **(feet) VERTCON
AT1392 **This station is located in a subsidence area (see below).
AT1392 _____
AT1392 X - 11,170.519 (meters) COMP
AT1392 Y - -5,552,481.333 (meters) COMP
AT1392 Z - 3,127,971.300 (meters) COMP
AT1392 LAPLACE CORR- 0.61 (seconds) DEFLEC99
AT1392 ELLIP HEIGHT- -24.50 (meters) (09/30/02) GPS OBS
AT1392 GEOID HEIGHT- -24.72 (meters) GEOID03
AT1392
AT1392 HORZ ORDER - FIRST
AT1392 ELLP ORDER - FOURTH CLASS II
AT1392
AT1392.The horizontal coordinates were established by GPS observations
AT1392.and adjusted by the National Geodetic Survey in January 1993.
AT1392
AT1392 ** The orthometric height has not been validated since last determined
AT1392 ** by differential leveling and should not be used for control purposes.
AT1392 ** See www.ngs.noaa.gov/heightmod/LouisianaControl.shtml for stations in this
AT1392 ** area with valid NAVD 88 orthometric heights.
AT1392 ** The geoid height was determined by a new realization of GEOID03 for the
AT1392 ** epoch indicated which incorporates improved geoid heights for the
AT1392 ** Southern Louisiana Subsidence area.
AT1392 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
AT1392.The NAVD 88 height was computed by applying the VERTCON shift value to
AT1392.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
AT1392
AT1392.This Tidal Bench Mark is designated as VM 15137
AT1392.by the Center for Operational Oceanographic Products and Services.
AT1392
AT1392.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AT1392
AT1392.The Laplace correction was computed from DEFLEC99 derived deflections.
AT1392
AT1392.The ellipsoidal height was determined by GPS observations
AT1392.and is referenced to NAD 83.
AT1392
AT1392.The geoid height was determined by GEOID03.
AT1392
AT1392; North East Units Scale Factor Converg.
AT1392;SPC LA S - 118,316.632 1,140,373.411 MT 0.99995523 +0 43 27.5
AT1392;UTM 16 - 3,273,437.735 220,492.400 MT 1.00056408 -1 25 26.5
AT1392
AT1392! - Elev Factor x Scale Factor = Combined Factor
AT1392!SPC LA S - 1.00000385 x 0.99995523 = 0.99995908
AT1392!UTM 16 - 1.00000385 x 1.00056408 = 1.00056793
AT1392
AT1392 SUPERSEDED SURVEY CONTROL
AT1392

AT1392 NAD 83(1986)- 29 33 33.84850(N)   089 53 05.03545(W) AD(   ) 1
AT1392 NAD 27   - 29 33 33.07216(N)   089 53 04.79385(W) AD(   ) 1
AT1392 NGVD 29 (05/20/88)   0.6   (m)   2.   (f) GPS OBS
AT1392
AT1392.Superseded values are not recommended for survey control.
AT1392.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AT1392.See file dsdata.txt to determine how the superseded data were derived.
AT1392
AT1392_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBT2049273438(NAD 83)
AT1392_MARKER: DB = BENCH MARK DISK
AT1392_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AT1392_SP_SET: STAINLESS STEEL ROD
AT1392_STAMPING: 1602 C 1985
AT1392_MARK LOGO: NOS
AT1392_PROJECTION: FLUSH
AT1392_MAGNETIC: I = MARKER IS A STEEL ROD
AT1392_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AT1392_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AT1392+SATELLITE: SATELLITE OBSERVATIONS - March 01, 2005
AT1392_ROD/PIPE-DEPTH: 22.0 meters
AT1392
AT1392 HISTORY   - Date   Condition   Report By
AT1392 HISTORY   - UNK   MONUMENTED
AT1392 HISTORY   - 1987   GOOD   LADTD
AT1392 HISTORY   - 19880920 GOOD   LADTD
AT1392 HISTORY   - 19890118 GOOD
AT1392 HISTORY   - 20050301 GOOD   INDIV
AT1392
AT1392   STATION DESCRIPTION
AT1392
AT1392'DESCRIBED BY LA TRANSP AND DEV 1987 (TLH)
AT1392'THE DESIGNATED MARK WAS RECOVERED AS PREVIOUSLY DESCRIBED.
AT1392'A COMPLETE NEW DESCRIPTION FOLLOWS.
AT1392'
AT1392'THE STATION IS LOCATED ABOUT 8 KM (5 MI) SOUTH OF THE JUNCTION OF
AT1392'STATE HIGHWAY 23 AND LAKE JUDGE PEREZ ROAD, IN PLAQUEMINES PARISH,
AT1392'IN PORT SULPHUR, LA.
AT1392'OWNERSHIP--ALFRED J LEBLANC, RFD NO 1 BOX 113, LAKE JUDGE PEREZ
AT1392'ROAD, PORT SULPHUR, LA.
AT1392'
AT1392'TO REACH THE STATION FROM MYRTLE GROVE GO SOUTHEAST ON STATE
AT1392'HIGHWAY 23 TO MILE MARKER 45.7.
AT1392'TURN RIGHT AND GO EAST FOR 8 KM (5 MI) ON LAKE JUDGE PEREZ ROAD TO
AT1392'A FIRE STATION ON THE RIGHT AND THE BENCH MARK ON THE LEFT.
AT1392'
AT1392'THE STATION IS A STANDARD NOS DISK
AT1392'STAMPED---1602 C 1985--- CRIMPED TO A STEEL ROD DRIVEN 22 METERS
AT1392'(72 FT) INTO THE GROUND AND ENCASED IN A 5-INCH PVC PIPE SURROUNDED
AT1392'BY CONCRETE.
AT1392'29 METERS (95.2 FT) NORTH FROM THE NORTH CORNER OF THE FIRE STATION,
AT1392'21.8 METERS (71.4 FT) EAST FROM A POWER POLE AND
AT1392'0.5 METERS (1.8 FT) SOUTHWEST FROM A WITNESS POST.
AT1392
AT1392   STATION RECOVERY (1988)
AT1392
AT1392'RECOVERY NOTE BY LA TRANSP AND DEV 1988
AT1392'THE STATION IS LOCATED ABOUT 8 KM (4.95 MI) SOUTH OF THE JUNCTION OF
AT1392'STATE HIGHWAY 23 AND LAKE JUDGE PEREZ ROAD IN PORT SULPHUR, LA.
AT1392'OWNERSHIP--ALFORD J. LABLANC, RFD NO 1 BOX 113, LAKE JUDGE PEREZ ROAD,
AT1392'PORT SULPHUR, LA.
AT1392'TO REACH THE STATION FROM MYRTLE GROVE GO SOUTHEAST ON STATE HIGHWAY
AT1392'23 TO MILE MARKER 45.7. TURN RIGHT AND GO EAST FOR 8 KM (4.95 MI) ON

AT1392'LAKE JUDGE PEREZ ROAD TO A FIRE STATION ON THE RIGHT AND THE BENCH
AT1392'MARK ON THE LEFT.
AT1392'THE STATION IS 29 M (95.1 FT) NORTH FROM THE NORTH CORNER OF THE FIRE
AT1392'STATION, 21.8 M (71.5 FT) EAST FROM A POWER POLE AND 0.5 M (1.6 FT)
AT1392'SOUTHWEST FROM A WITNESS POST.
AT1392
AT1392 STATION RECOVERY (1989)
AT1392
AT1392'RECOVERED 1989
AT1392'RECOVERED IN GOOD CONDITION.
AT1392
AT1392 STATION RECOVERY (2005)
AT1392
AT1392'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2005 (TG)
AT1392'RECOVERED AS DESCRIBED

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
AU2028 **********
AU2028 HT_MOD - This is a Louisiana Height Modernization Survey Station.
AU2028 DESIGNATION - G 358
AU2028 PID - AU2028
AU2028 STATE/COUNTY- LA/LAFOURCHE
AU2028 USGS QUAD - GOLDEN MEADOW (1994)
AU2028
AU2028 *CURRENT SURVEY CONTROL
AU2028 _____
AU2028* NAD 83(1992)- 29 27 38.86103(N) 090 18 31.16586(W) ADJUSTED
AU2028* NAVD 88 - 0.82 **(meters) 2.7 **(feet) LEVELING(2004.65)
AU2028 **This station is located in a subsidence area (see below).
AU2028 **This station is included in the VTDP model (see below).
AU2028 _____
AU2028 EPOCH DATE - 2004.65
AU2028 X - -29,940.604 (meters) COMP
AU2028 Y - -5,557,796.012 (meters) COMP
AU2028 Z - 3,118,459.943 (meters) COMP
AU2028 LAPLACE CORR- 0.95 (seconds) DEFLEC99
AU2028 ELLIP HEIGHT- -23.97 (meters) (06/22/05) GPS OBS
AU2028 GEOID HEIGHT- -24.79 (meters) GEOID03
AU2028 DYNAMIC HT - 0.82 (meters) 2.7 (feet) COMP
AU2028 MODELED GRAV- 979,289.0 (mgal) NAVD 88
AU2028
AU2028 HORZ ORDER - B
AU2028 VERT ORDER - THIRD
AU2028 ELLP ORDER - FOURTH CLASS I
AU2028
AU2028.The horizontal coordinates were established by GPS observations
AU2028.and adjusted by the National Geodetic Survey in June 2005.
AU2028.The horizontal coordinates are valid at the epoch date displayed above.
AU2028.The epoch date for horizontal control is a decimal equivalence
AU2028.of Year/Month/Day.
AU2028
AU2028 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
AU2028 ** and geoid heights are valid at the date of observation. These heights
AU2028 ** must always be validated when used as control.
AU2028 ** The orthometric height was determined with a Vertical Time-dependent
AU2028 ** Positioning (VTDP) model and has been validated through GPS observations
AU2028 ** for the epoch indicated (see www.ngs.noaa.gov/heightmod/VTDP.shtml).
AU2028 ** The geoid height was determined by a new realization of GEOID03 for the
AU2028 ** epoch indicated which incorporates improved geoid heights for the
AU2028 ** Southern Louisiana Subsidence area
AU2028 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
AU2028.The orthometric height was determined by differential leveling.
AU2028.The vertical network tie was performed by a horz. field party for horz.
AU2028.obs reductions. Reset procedures were used to establish the elevation.
AU2028
AU2028.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AU2028
AU2028.The Laplace correction was computed from DEFLEC99 derived deflections.
AU2028
AU2028.The ellipsoidal height was determined by GPS observations
AU2028.and is referenced to NAD 83.
AU2028
AU2028.The geoid height was determined by GEOID03.
AU2028
AU2028.The dynamic height is computed by dividing the NAVD 88
AU2028.geopotential number by the normal gravity value computed on the

AU2028.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AU2028.degrees latitude (g = 980.6199 gals.).
AU2028
AU2028.The modeled gravity was interpolated from observed gravity values.
AU2028
AU2028; North East Units Scale Factor Converg.
AU2028;SPC LA S - 106,944.590 1,099,392.966 MT 0.99996986 +0 30 44.5
AU2028;UTM 15 - 3,262,055.950 761,015.452 MT 1.00044073 +1 19 27.9
AU2028
AU2028! - Elev Factor x Scale Factor = Combined Factor
AU2028!SPC LA S - 1.00000376 x 0.99996986 = 0.99997362
AU2028!UTM 15 - 1.00000376 x 1.00044073 = 1.00044450
AU2028
AU2028 SUPERSEDED SURVEY CONTROL
AU2028
AU2028 NAVD 88 (02/14/94) 1.005 (m) 3.30 (f) READJUSTED 3
AU2028 NAVD 88 (06/15/91) 1.068 (m) 3.50 (f) UNKNOWN 1 2
AU2028 NGVD 29 (??/??/??) 1.046 (m) 3.43 (f) ADJUSTED 1 2
AU2028
AU2028.Superseded values are not recommended for survey control.
AU2028.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AU2028.See file dsdata.txt to determine how the superseded data were derived.
AU2028
AU2028_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYN6101562056(NAD 83)
AU2028_MARKER: I = METAL ROD
AU2028_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AU2028_SP_SET: STAINLESS STEEL ROD
AU2028_STAMPING: G 358 1982
AU2028_MARK LOGO: NGS
AU2028_PROJECTION: FLUSH
AU2028_MAGNETIC: I = MARKER IS A STEEL ROD
AU2028_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AU2028_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AU2028+SATELLITE: SATELLITE OBSERVATIONS - October 10, 2005
AU2028_ROD/PIPE-DEPTH: 21.9 meters
AU2028
AU2028 HISTORY - Date Condition Report By
AU2028 HISTORY - 1982 MONUMENTED NGS
AU2028 HISTORY - 19930224 GOOD NGS
AU2028 HISTORY - 20040413 GOOD NGS
AU2028 HISTORY - 20051010 GOOD NGS
AU2028
AU2028 STATION DESCRIPTION
AU2028
AU2028'DESCRIBED BY NATIONAL GEODETIC SURVEY 1982
AU2028'3.2 KM (2.0 MI) NW FROM GALLIANO.
AU2028'THE MARK IS ABOVE LEVEL WITH HIGHWAY.
AU2028'3.2 KILOMETERS (2.0 MILES) NORTHWEST ALONG STATE HIGHWAY 308 FROM THE
AU2028'JUNCTION OF THE BAYOU BRIDGE AND EAST 128TH STREET IN GALLIANO, TO THE
AU2028'MARK ON THE RIGHT, AT THE SOUTH CORNER OF THE PROPERTY OF THE STAGE
AU2028'COACH LOUNGE, 8.53 METERS (28.0 FEET) NORTHEAST OF THE CENTER LINE OF
AU2028'THE HIGHWAY, 11.07 METERS (36.3 FEET) SOUTH OF THE CORNER OF THE
AU2028'BUILDING, 0.51 METER (1.7 FEET) WEST OF THE SOUTHWEST END OF A 3-FOOT
AU2028'HIGH METAL PIPE PROPERTY LINE FENCE, 0.91 METER (3.0 FEET) NORTHWEST
AU2028'OF A POWER POLE WITH TWO TRANSFORMERS.
AU2028
AU2028 STATION RECOVERY (1993)
AU2028
AU2028'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993
AU2028'9.3 KM (5.75 MI) NORTHWESTERLY ALONG STATE HIGHWAY 308 FROM THE
AU2028'JUNCTION OF STATE HIGHWAY 1 IN GOLDEN MEADOW, 11.1 M (36.4 FT)
AU2028'SOUTHWEST OF THE SOUTH CORNER OF AN ABANDONED BUILDING, 8.5 M (27.9

AU2028'FT) NORTHEAST OF THE CENTERLINE OF THE HIGHWAY, 0.7 M (2.3 FT)
AU2028'NORTHWEST OF A UTILITY LIGHT POLE WITH 2 TRANSFORMERS ATTACHED, 0.4 M
AU2028'(1.3 FT) NORTH-NORTHWEST OF THE SOUTHWEST END OF A FENCE, AND 0.3 M
AU2028'(1.0 FT) BELOW THE LEVEL OF THE HIGHWAY. NOTE--ACCESS TO THE DATUM
AU2028'POINT IS THROUGH A 5-INCH LOGO CAP.
AU2028
AU2028 STATION RECOVERY (2004)
AU2028
AU2028'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AU2028'RECOVERED AS DESCRIBED
AU2028
AU2028 STATION RECOVERY (2005)
AU2028
AU2028'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (KLF)
AU2028'RECOVERED AS DESCRIBED.

The NGS Data SheetSee file dsdata.txt for more information about the datasheet.DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.30
1 National Geodetic Survey, Retrieval Date = FEBRUARY 13, 2006
AU2310 **********
AU2310 HT_MOD - This is a Louisiana Height Modernization Survey Station.
AU2310 TIDAL BM - This is a Tidal Bench Mark.
AU2310 DESIGNATION - 876 1899 B TIDAL
AU2310 PID - AU2310
AU2310 STATE/COUNTY- LA/JEFFERSON
AU2310 USGS QUAD - LAFITTE (1973)
AU2310
AU2310 *CURRENT SURVEY CONTROL
AU2310 _____
AU2310* NAD 83(1992)- 29 40 02.04511(N) 090 06 33.55694(W) ADJUSTED
AU2310* NAVD 88 - 0.01 **(meters) 0.0 **(feet) LEVELING(2004.65)
AU2310 **This station is located in a subsidence area (see below).
AU2310 **This station is included in the VTDP model (see below).
AU2310 _____
AU2310 EPOCH DATE - 2004.65
AU2310 X - -10,582.978 (meters) COMP
AU2310 Y - -5,546,575.259 (meters) COMP
AU2310 Z - 3,138,362.898 (meters) COMP
AU2310 LAPLACE CORR- 0.59 (seconds) DEFLEC99
AU2310 ELLIP HEIGHT- -25.17 (meters) (06/22/05) GPS OBS
AU2310 GEOID HEIGHT- -25.19 (meters) GEOID03
AU2310
AU2310 HORZ ORDER - B
AU2310 VERT ORDER - THIRD
AU2310 ELLP ORDER - FOURTH CLASS I
AU2310
AU2310.The horizontal coordinates were established by GPS observations
AU2310.and adjusted by the National Geodetic Survey in June 2005.
AU2310.The horizontal coordinates are valid at the epoch date displayed above.
AU2310.The epoch date for horizontal control is a decimal equivalence
AU2310.of Year/Month/Day.
AU2310
AU2310 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
AU2310 ** and geoid heights are valid at the date of observation. These heights
AU2310 ** must always be validated when used as control.
AU2310 ** The orthometric height was determined with a Vertical Time-dependent
AU2310 ** Positioning (VTDP) model and has been validated through GPS observations
AU2310 ** for the epoch indicated (see www.ngs.noaa.gov/heightmod/VTDP.shtml).
AU2310 ** The geoid height was determined by a new realization of GEOID03 for the
AU2310 ** epoch indicated which incorporates improved geoid heights for the
AU2310 ** Southern Louisiana Subsidence area
AU2310 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03).
AU2310.The orthometric height was determined by differential leveling.
AU2310.The vertical network tie was performed by a horz. field party for horz.
AU2310.obs reductions. Reset procedures were used to establish the elevation.
AU2310
AU2310.This Tidal Bench Mark is designated as VM 11049
AU2310.by the Center for Operational Oceanographic Products and Services.
AU2310
AU2310.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AU2310
AU2310.The Laplace correction was computed from DEFLEC99 derived deflections.
AU2310
AU2310.The ellipsoidal height was determined by GPS observations
AU2310.and is referenced to NAD 83.
AU2310
AU2310.The geoid height was determined by GEOID03.
AU2310

AU2310;   North   East   Units Scale Factor Converg.
AU2310;SPC LA S   -   130,014.848 1,118,483.330   MT 0.99994259   +0 36 43.3
AU2310;UTM 15   - 3,285,408.447   779,785.688   MT 1.00056598   +1 25 54.1
AU2310
AU2310!   - Elev Factor x Scale Factor =   Combined Factor
AU2310!SPC LA S   -   1.00000395 x   0.99994259 =   0.99994654
AU2310!UTM 15   -   1.00000395 x   1.00056598 =   1.00056994
AU2310
AU2310   SUPERSEDED SURVEY CONTROL
AU2310
AU2310 NAVD 88 (12/05/96)   0.141 (m)   0.46   (f) ADJUSTED   1 2
AU2310 NAVD 88 (02/14/94)   0.094 (m)   0.31   (f) UNKNOWN   1 2
AU2310
AU2310.Superseded values are not recommended for survey control.
AU2310.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AU2310.See file dsdata.txt to determine how the superseded data were derived.
AU2310
AU2310_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYN7978685408(NAD 83)
AU2310_MARKER: DJ = TIDAL STATION DISK
AU2310_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AU2310_SP_SET: STAINLESS STEEL ROD
AU2310_STAMPING: 1899 B 1985
AU2310_MARK LOGO: NOS
AU2310_PROJECTION: RECESSED 15 CENTIMETERS
AU2310_MAGNETIC: I = MARKER IS A STEEL ROD
AU2310_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AU2310_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AU2310+SATELLITE: SATELLITE OBSERVATIONS - April 16, 2004
AU2310_ROD/PIPE-DEPTH: 24.4 meters
AU2310
AU2310 HISTORY   - Date   Condition   Report By
AU2310 HISTORY   - 1985   MONUMENTED   NOS
AU2310 HISTORY   - 1985   GOOD   LA-051
AU2310 HISTORY   - 19940826 GOOD   NGS
AU2310 HISTORY   - 20040416 GOOD   NGS
AU2310
AU2310   STATION DESCRIPTION
AU2310
AU2310'DESCRIBED BY JEFFERSON PARISH LOUISIANA 1985
AU2310'IN LAFITTE.
AU2310'AT LAFITTE, FROM THE JUNCTION OF LOUISIANA HGIGHWAY 45 AND MARRERO
AU2310'STREET TURN LEFT AND PROCEED .05 MILE TO THE JUNCTION OF 3RD STREET,
AU2310'LOCATED ON MARRERO STREET NEAR THE NORTHEST CORNER OF A BASKETBALL
AU2310'COURT, 237.0 FEET SOUTHEAST OF TIDAL MARK 876 1899 A, 63.0 FEET
AU2310'NORTH-NORTHEAST OF THE SOUTHEAST CORNER OF A CHAIN LINK FENCE AROUND
AU2310'THE BASKETBALL COURT, 57.0 FEET WEST-SOUTHWEST OF A POWER POLE ON THE
AU2310'EAST SIDE OF MARRERO STREET (POLE BEARING STREET SIGN OF MARRERO AND
AU2310'3RD STREET), 42.4 FEET NORTHEAST OF THE EASTERN MOST BASKETBALL POST,
AU2310'32 FEET WEST OF THE CENTERLINE OF MARRERO STREET.
AU2310'THE MARK IS 1 FT W FROM A WITNESS POST.
AU2310
AU2310   STATION RECOVERY (1994)
AU2310
AU2310'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1994 (GAS)
AU2310'14.4 KM (8.95 MI) SOUTHERLY ALONG STATE HIGHWAY 45 FROM THE JUNCTION
AU2310'OF STATE HIGHWAYS 303 AND 3134 IN CROWN POINT, THENCE 0.1 KM (0.05 MI)
AU2310'SOUTHERLY ALONG MARRERO STREET, 9.8 M (32.2 FT) WEST OF THE CENTERLINE
AU2310'OF MARRERO STREET, 6.3 M (20.7 FT) SOUTHEAST OF THE NORTHEAST CORNER
AU2310'OF A CHAIN-LINK FENCE ENCLOSING A BASKETBALL COURT, 5.3 M (17.4 FT)
AU2310'SOUTH OF THE CENTER OF THIRD STREET, AND 0.3 M (1.0 FT) BELOW THE
AU2310'LEVEL OF MARRERO STREET. NOTE--THE DISK IS ENCASED IN A 5-INCH PCV
AU2310'PIPE AND IS FLUSH WITH THE GROUND SURFACE.

AU2310
AU2310 STATION RECOVERY (2004)
AU2310
AU2310'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AU2310'9 MI SOUTH ON STATE HWY 45 FROM THE JUNCTION WITH 303 AND 3134 IN
AU2310'CROWN POINT. LOCATED AT THE LOWER LAFITTE PLAYGROUND. IT IS 32.2 FT
AU2310'W OF THE CENTERLINE OF US 45, 20.8 FT SE OF THE NE CORNER OF THE
AU2310'FENCE AROUND THE BASKETBALL COURT, 18.1 FT EAST OF THE FIRST POST
AU2310'SOUTH OF THE NE CORNER POST, 34.6 FT NNE OF THE NORTHERN MOST SIGN
AU2310'POST FOR THE LOWER LAFFITE PLAYGROUND.

BENCH MARK STAMPING: 1494A 1996

AT POINTE ALA HACHE,LA ON THE WEST BANK OF THE MISSISSIPPI RIVER THE MARK IS SET FLUSH IN THE UPSTREAM CONCRETE FERRY RAMP ABUTMENT. THE MARK IS LOCATED 6.5 FT.(2 M.) FROM THE UPSTREAM END OF THE ABUTMENT AND 27 FT.(8 M.) WNW. OF THE CENTER LINE OF THE ROAD LEADING TO THE FERRY RAMP AND IS 1.2 FT. ABOVE THE ROAD WAY.

BENCH MARK STAMPING: 1494C 1996

AT POINT ALA HACHE ,LA.ON THE WEST BANK OF THE MISSISSIPPI RIVER IN THE YARD OF THE PORT SULPHUR WATER WORKS DEPARTMENT. THE MARK IS SET FLUSH IN THE CONCRETE SLAB WHICH SUPPORTS AN INACTIVE AMMONIA TANK.MARK IS LOCATED ON THE UPPER NORTHEASTERN CORNER OF THE SLAB. THE SLAB IS 8'FEET BY 17'FEET BY 9" THICK AND LOCATED 25 FT. (8 M.) ESE OF THE PLANTS WATER INTAKE LINE IN THE REAR OF THE YARD.

BENCH MARK STAMPING: 1494B 1996

AT POINTE ALA HACHE,LA. ON THE WEST BANK OF THE MISSISSIPPI RIVER 1030 FT. (314 M.) UPSTREAM OF THE ROAD LEADING TO THE POINTE ALAHACHE FERRY,30 FT.(9 M.) RIVER SIDE OF THE BASE OF THE LEVEE. AND 5 FT.(1.5 M.) LANDSIDE OF STONE RIPRAP THAT PROTECTS THE RIVER BANK. MARK IS A BRASS DISK SET ATOP A 1/2" STAINLESS STEEL ROD WHICH IS DRIVEN TO A DEPTH OF 80 FT. (24 M.) TO SUBSTANTIAL RESISTANCE AND IS ENCASED IN A 5" WHITE PVC PIPE WITH ACCESS COVER AND PROJECTS 2.5'FEET ABOVE THE GROUND.
ELEVATION:

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service

Station ID: **8761799** **PUBLICATION DATE:** **08/12/2005**
Name: **M.V. PETROLEUM DOCK, BAYOU ST DENIS LOUISIANA**
NOAA Chart: **11358** **Latitude:** **29° 29.8' N**
USGS Quad: **BAY DOSGRIS** **Longitude:** **90° 1.5' W**

T I D A L B E N C H M A R K S

BENCH MARK STAMPING: **1799 B 1985**
DESIGNATION: 876 1799 B TIDAL

MONUMENTATION: Tidal Station disk VM#: 7195
AGENCY: National Ocean Service (NOS) PID:
SETTING CLASSIFICATION: Stainless steel rod

The bench mark is a disk located 75.80 m (248.7 ft) NW of bench mark 1799 A 1985, 28.65 m (94.0 ft) west of a 3-pile cluster near the westernmost corner of the slip, 17.22 m (56.5 ft) south of a 2-inch square wood post standing 1 m (4 ft) above the marsh, 9.75 m (32.0 ft) west of the slip bank at its NW corner, and 0.64 m (2.1 ft) ENE of an NOS witness post. The bench mark is set 0.15 m (0.5 ft) above ground level, crimped to the top of a stainless steel rod driven 21.9 m (72 ft) to substantial resistance, and encased in a 5-inch PVC pipe and concrete kickblock.

BENCH MARK STAMPING: **1799 C 1985**
DESIGNATION: 876 1799 C TIDAL

MONUMENTATION: Tidal Station disk VM#: 7196
AGENCY: National Ocean Service (NOS) PID:
SETTING CLASSIFICATION: Stainless steel rod

The bench mark is a disk located 75.35 m (247.2 ft) north of bench mark 1799 B 1985, 36.45 m (119.6 ft) SW of a 2-inch square wood post standing 1 m (4 ft) above the marsh, 21 m (70 ft) NNE of a 2-inch flowline originating at the well head in the slip and crossing the spoil bank, 6.40 m (21.0 ft) NW of the bank of the slip, and 0.46 m (1.5 ft) SE of an NOS witness post. The bench mark is set 12 cm (0.4 ft) above ground level, crimped to the top of a stainless steel rod driven 20.7 m (68 ft) to refusal, and encased in a 5-inch PVC pipe and concrete kickblock.

DG6568 **********
DG6568 HT_MOD - This is a Louisiana Height Modernization Survey Station.
DG6568 CORS - This is a GPS Continuously Operating Reference Station.
DG6568 DESIGNATION - COVINGTON CORS ARP
DG6568 CORS_ID - COVG
DG6568 PID - DG6568
DG6568 STATE/COUNTY- LA/ST TAMMANY
DG6568 USGS QUAD - COVINGTON (1994)
DG6568
DG6568 *CURRENT SURVEY CONTROL
DG6568 _____
DG6568* NAD 83(CORS)- 30 28 33.26965(N) 090 05 43.92326(W) ADJUSTED
DG6568* NAVD 88 - 22.39 **(meters) 73.5 **(feet) GPS OBS(2004.65)
DG6568 **This station is located in a subsidence area (see below).
DG6568 _____
DG6568 EPOCH DATE - 2002.00
DG6568 X - -9,173.433 (meters) COMP
DG6568 Y - -5,501,676.859 (meters) COMP
DG6568 Z - 3,215,950.683 (meters) COMP
DG6568 ELLIP HEIGHT- -4.56 (meters) (08/??/04) GPS OBS
DG6568 GEOID HEIGHT- -26.98 (meters) GEOID03
DG6568
DG6568 HORZ ORDER - SPECIAL (CORS)
DG6568 ELLP ORDER - SPECIAL (CORS)
DG6568
DG6568.ITRF positions are available for this station.
DG6568.The coordinates were established by GPS observations
DG6568.and adjusted by the National Geodetic Survey in August 2004.
DG6568.The coordinates are valid at the epoch date displayed above.
DG6568.The epoch date for horizontal control is a decimal equivalence
DG6568.of Year/Month/Day.
DG6568
DG6568 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
DG6568 ** and geoid heights are valid at the date of observation. These heights
DG6568 ** must always be validated when used as control.
DG6568 ** The orthometric height was determined by GPS observations using
DG6568 ** precise GPS observation and processing techniques and a new
DG6568 ** realization of GEOID03. It supersedes the leveled height previously
DG6568 ** determined for this station.
DG6568 ** The geoid height was determined by a new realization of GEOID03 for the
DG6568 ** epoch indicated which incorporates improved geoid heights for the
DG6568 ** Southern Louisiana Subsidence area.
DG6568 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03/).
DG6568.The orthometric height was determined by GPS observations and a
DG6568.high-resolution geoid model using precise GPS observation and
DG6568.processing techniques.
DG6568
DG6568.The PID for the CORS L1 Phase Center is DG6569.
DG6568
DG6568.The XYZ, and position/ellipsoidal ht. are equivalent.
DG6568
DG6568.The ellipsoidal height was determined by GPS observations
DG6568.and is referenced to NAD 83.
DG6568
DG6568.The geoid height was determined by GEOID03.
DG6568

DG6568; North East Units Scale Factor Converg.
DG6568;SPC LA S - 219,662.521 1,118,849.594 MT 0.99996000 +0 37 08.1
DG6568
DG6568! - Elev Factor x Scale Factor = Combined Factor
DG6568!SPC LA S - 1.00000072 x 0.99996000 = 0.99996072
DG6568
DG6568 SUPERSEDED SURVEY CONTROL
DG6568
DG6568.No superseded survey control is available for this station.
DG6568
DG6568_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYP7884175108(NAD 83)
DG6568_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
DG6568
DG6568 STATION DESCRIPTION
DG6568
DG6568'DESCRIBED BY NATIONAL GEODETIC SURVEY 2004
DG6568'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
DG6568'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DG6568'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DG6568' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
DG6568' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.
DG6569 **********
DG6569 CORS - This is a GPS Continuously Operating Reference Station.
DG6569 DESIGNATION - COVINGTON CORS L1 PHASE CENTER
DG6569 CORS_ID - COVG
DG6569 PID - DG6569
DG6569 STATE/COUNTY- LA/ST TAMMANY
DG6569 USGS QUAD - COVINGTON (1994)
DG6569
DG6569 *CURRENT SURVEY CONTROL
DG6569 _____
DG6569* NAD 83(CORS)- 30 28 33.26967(N) 090 05 43.92325(W) ADJUSTED
DG6569* NAVD 88 -
DG6569 _____
DG6569 EPOCH DATE - 2002.00
DG6569 X - -9,173.433 (meters) COMP
DG6569 Y - -5,501,676.954 (meters) COMP
DG6569 Z - 3,215,950.739 (meters) COMP
DG6569 ELLIP HEIGHT- -4.45 (meters) (08/??/04) GPS OBS
DG6569 GEOID HEIGHT- -26.98 (meters) GEOID03
DG6569
DG6569 HORZ ORDER - SPECIAL (CORS)
DG6569 ELLP ORDER - SPECIAL (CORS)
DG6569
DG6569.ITRF positions are available for this station.
DG6569.The coordinates were established by GPS observations
DG6569.and adjusted by the National Geodetic Survey in August 2004.
DG6569.The coordinates are valid at the epoch date displayed above.
DG6569.The epoch date for horizontal control is a decimal equivalence
DG6569.of Year/Month/Day.
DG6569
DG6569
DG6569.The PID for the CORS ARP is DG6568.
DG6569
DG6569.The XYZ, and position/ellipsoidal ht. are equivalent.
DG6569

DG6569.The ellipsoidal height was determined by GPS observations
DG6569.and is referenced to NAD 83.
DG6569
DG6569.The geoid height was determined by GEOID03.
DG6569
DG6569; North East Units Scale Factor Converg.
DG6569;SPC LA S - 219,662.521 1,118,849.594 MT 0.99996000 +0 37 08.1
DG6569
DG6569! - Elev Factor x Scale Factor = Combined Factor
DG6569!SPC LA S - 1.00000070 x 0.99996000 = 0.99996070
DG6569
DG6569 SUPERSEDED SURVEY CONTROL
DG6569
DG6569.No superseded survey control is available for this station.
DG6569
DG6569_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYP7884175108(NAD 83)
DG6569_MARKER: STATION IS THE L1 PHASE CENTER OF THE GPS ANTENNA
DG6569
DG6569 STATION DESCRIPTION
DG6569
DG6569'DESCRIBED BY NATIONAL GEODETIC SURVEY
DG6569'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
DG6569'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DG6569'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DG6569' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
DG6569' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

AF9593 **
AF9593 HT_MOD   - This is a Louisiana Height Modernization Survey Station.
AF9593 CORS   - This is a GPS Continuously Operating Reference Station.
AF9593 DESIGNATION - ENGLISH TURN 2 CORS ARP
AF9593 CORS_ID   - ENG2
AF9593 PID   - AF9593
AF9593 STATE/COUNTY- LA/PLAQUEMINES
AF9593 USGS QUAD   - CHALMETTE (1994)
AF9593
AF9593   *CURRENT SURVEY CONTROL
AF9593 ____
AF9593* NAD 83(CORS)- 29 52 45.04451(N)   089 56 31.48474(W)   ADJUSTED
AF9593* NAVD 88   -   8.63 **(meters)   28.3 **(feet) GPS OBS(2004.65)
AF9593 **This station is located in a subsidence area (see below).
AF9593 ____
AF9593 EPOCH DATE -   2002.00
AF9593 X   -   5,595.314 (meters)   COMP
AF9593 Y   - -5,534,923.260 (meters)   COMP
AF9593 Z   -   3,158,759.288 (meters)   COMP
AF9593 ELLIP HEIGHT-   -17.19 (meters)   (10/??/05) GPS OBS
AF9593 GEOID HEIGHT-   -25.82 (meters)   GEOID03
AF9593
AF9593 HORZ ORDER - SPECIAL (CORS)
AF9593 ELLP ORDER - SPECIAL (CORS)
AF9593
AF9593.ITRF positions are available for this station.
AF9593.The coordinates were established by GPS observations
AF9593.and adjusted by the National Geodetic Survey in October 2005.
AF9593.The coordinates are valid at the epoch date displayed above.
AF9593.The epoch date for horizontal control is a decimal equivalence
AF9593.of Year/Month/Day.
AF9593
AF9593 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
AF9593 ** and geoid heights are valid at the date of observation. These heights
AF9593 ** must always be validated when used as control.
AF9593 ** The orthometric height was determined by GPS observations using
AF9593 ** precise GPS observation and processing techniques and a new
AF9593 ** realization of GEOID03. It supersedes the leveled height previously
AF9593 ** determined for this station.
AF9593 ** The geoid height was determined by a new realization of GEOID03 for the
AF9593 ** epoch indicated which incorporates improved geoid heights for the
AF9593 ** Southern Louisiana Subsidence area.
AF9593 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03/).
AF9593.The orthometric height was determined by GPS observations and a
AF9593.high-resolution geoid model using precise GPS observation and
AF9593.processing techniques.
AF9593
AF9593.The PID for the CORS L1 Phase Center is CQ5984.
AF9593
AF9593.The XYZ, and position/ellipsoidal ht. are equivalent.
AF9593
AF9593.The ellipsoidal height was determined by GPS observations
AF9593.and is referenced to NAD 83.
AF9593
AF9593.The geoid height was determined by GEOID03.
AF9593

AF9593; North East Units Scale Factor Converg.
AF9593;SPC LA S - 153,690.042 1,134,386.275 MT 0.99992799 +0 41 44.3
AF9593
AF9593! - Elev Factor x Scale Factor = Combined Factor
AF9593!SPC LA S - 1.00000270 x 0.99992799 = 0.99993069
AF9593
AF9593 SUPERSEDED SURVEY CONTROL
AF9593
AF9593 NAD 83(CORS)- 29 52 45.04458(N) 089 56 31.48453(W) AD(2002.00) c
AF9593 NAD 83(CORS)- 29 52 45.04424(N) 089 56 31.48517(W) AD(2002.00) c
AF9593 ELLIP H (03/??/02) -17.17 (m) GP(2002.00) c c
AF9593 NAD 83(CORS)- 29 52 45.04427(N) 089 56 31.48457(W) AD(1997.00) c
AF9593 NAD 83(CORS)- 29 52 45.04427(N) 089 56 31.48457(W) AD(1996.00) c
AF9593 ELLIP H (08/??/96) -17.17 (m) GP(1997.00) c c
AF9593 ELLIP H (08/??/96) -17.17 (m) GP(1996.00) c c
AF9593
AF9593.Superseded values are not recommended for survey control.
AF9593.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AF9593.See file dsdata.txt to determine how the superseded data were derived.
AF9593
AF9593_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU1583709034(NAD 83)
AF9593_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
AF9593
AF9593 STATION DESCRIPTION
AF9593
AF9593'DESCRIBED BY NATIONAL GEODETIC SURVEY 2005
AF9593'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
AF9593'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
AF9593'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
AF9593' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
AF9593' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.
CQ5984 **********
CQ5984 CORS - This is a GPS Continuously Operating Reference Station.
CQ5984 DESIGNATION - ENGLISH TURN 2 CORS L1 PHASE CENTER
CQ5984 CORS_ID - ENG2
CQ5984 PID - CQ5984
CQ5984 STATE/COUNTY- LA/PLAQUEMINES
CQ5984 USGS QUAD - CHALMETTE (1994)
CQ5984
CQ5984 *CURRENT SURVEY CONTROL
CQ5984 _____
CQ5984* NAD 83(CORS)- 29 52 45.04447(N) 089 56 31.48477(W) ADJUSTED
CQ5984* NAVD 88 -
CQ5984 **This station is located in a subsidence area (see below).
CQ5984 _____
CQ5984 EPOCH DATE - 2002.00
CQ5984 X - 5,595.313 (meters) COMP
CQ5984 Y - -5,534,923.339 (meters) COMP
CQ5984 Z - 3,158,759.332 (meters) COMP
CQ5984 ELLIP HEIGHT- -17.10 (meters) (10/??/05) GPS OBS
CQ5984 GEOID HEIGHT- -25.82 (meters) GEOID03
CQ5984
CQ5984 HORZ ORDER - SPECIAL (CORS)
CQ5984 ELLP ORDER - SPECIAL (CORS)
CQ5984
CQ5984.ITRF positions are available for this station.

CQ5984.The coordinates were established by GPS observations
CQ5984.and adjusted by the National Geodetic Survey in October 2005.
CQ5984.The coordinates are valid at the epoch date displayed above.
CQ5984.The epoch date for horizontal control is a decimal equivalence
CQ5984.of Year/Month/Day.
CQ5984
CQ5984 ** The orthometric height has not been validated since last determined
CQ5984 ** by differential leveling and should not be used for control purposes.
CQ5984 ** See www.ngs.noaa.gov/heightmod/LouisianaControl.shtml for stations in this
CQ5984 ** area with valid NAVD 88 orthometric heights.
CQ5984 ** The geoid height was determined by a new realization of GEOID03 for the
CQ5984 ** epoch indicated which incorporates improved geoid heights for the
CQ5984 ** Southern Louisiana Subsidence area.
CQ5984 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03/).
CQ5984
CQ5984.The PID for the CORS ARP is AF9593.
CQ5984
CQ5984.The XYZ, and position/ellipsoidal ht. are equivalent.
CQ5984
CQ5984.The ellipsoidal height was determined by GPS observations
CQ5984.and is referenced to NAD 83.
CQ5984
CQ5984.The geoid height was determined by GEOID03.
CQ5984
CQ5984; North East Units Scale Factor Converg.
CQ5984;SPC LA S - 153,690.041 1,134,386.275 MT 0.99992799 +0 41 44.3
CQ5984
CQ5984! - Elev Factor x Scale Factor = Combined Factor
CQ5984!SPC LA S - 1.00000269 x 0.99992799 = 0.99993068
CQ5984
CQ5984 SUPERSEDED SURVEY CONTROL
CQ5984
CQ5984 NAD 83(CORS)- 29 52 45.04454(N) 089 56 31.48456(W) AD(2002.00) c
CQ5984 NAD 83(CORS)- 29 52 45.04420(N) 089 56 31.48520(W) AD(2002.00) c
CQ5984 ELLIP H (03/??/02) -17.08 (m) GP(2002.00) c c
CQ5984 NAD 83(CORS)- 29 52 45.04423(N) 089 56 31.48460(W) AD(1997.00) c
CQ5984 NAD 83(CORS)- 29 52 45.04423(N) 089 56 31.48460(W) AD(1996.00) c
CQ5984 ELLIP H (08/??/96) -17.08 (m) GP(1997.00) c c
CQ5984 ELLIP H (08/??/96) -17.08 (m) GP(1996.00) c c
CQ5984
CQ5984.Superseded values are not recommended for survey control.
CQ5984.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
CQ5984.See file dsdata.txt to determine how the superseded data were derived.
CQ5984
CQ5984_U.S. NATIONAL GRID SPATIAL ADDRESS: 16RBU1583709034(NAD 83)
CQ5984_MARKER: STATION IS THE L1 PHASE CENTER OF THE GPS ANTENNA
CQ5984
CQ5984 STATION DESCRIPTION
CQ5984
CQ5984'DESCRIBED BY NATIONAL GEODETIC SURVEY
CQ5984'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
CQ5984'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
CQ5984'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
CQ5984' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
CQ5984' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

DG5315 **
DG5315 HT_MOD   - This is a Louisiana Height Modernization Survey Station.
DG5315 CORS   - This is a GPS Continuously Operating Reference Station.
DG5315 DESIGNATION - HOUMA CORS ARP
DG5315 CORS_ID   - HOUM
DG5315 PID   - DG5315
DG5315 STATE/COUNTY- LA/TERREBONNE
DG5315 USGS QUAD   - HOUMA (1980)
DG5315
DG5315   *CURRENT SURVEY CONTROL
DG5315 ____
DG5315* NAD 83(CORS)- 29 35 32.10988(N)   090 43 24.98886(W)   ADJUSTED
DG5315* NAVD 88   -   13.96 **(meters)   45.8 **(feet) GPS OBS(2004.65)
DG5315 **This station is located in a subsidence area (see below).
DG5315 ____
DG5315 EPOCH DATE -   2002.00
DG5315 X   -   -70,099.910 (meters)   COMP
DG5315 Y   - -5,550,263.853 (meters)   COMP
DG5315 Z   - 3,131,145.116 (meters)   COMP
DG5315 ELLIP HEIGHT-   -11.32 (meters)   (04/??/04) GPS OBS
DG5315 GEOID HEIGHT-   -25.29 (meters)   GEOID03
DG5315
DG5315 HORZ ORDER - SPECIAL (CORS)
DG5315 ELLP ORDER - SPECIAL (CORS)
DG5315
DG5315.ITRF positions are available for this station.
DG5315.The coordinates were established by GPS observations
DG5315.and adjusted by the National Geodetic Survey in April 2004.
DG5315.The coordinates are valid at the epoch date displayed above.
DG5315.The epoch date for horizontal control is a decimal equivalence
DG5315.of Year/Month/Day.
DG5315
DG5315 ** Due to the variability of land subsidence, the orthometric, ellipsoid,
DG5315 ** and geoid heights are valid at the date of observation. These heights
DG5315 ** must always be validated when used as control.
DG5315 ** The orthometric height was determined by GPS observations using
DG5315 ** precise GPS observation and processing techniques and a new
DG5315 ** realization of GEOID03. It supersedes the leveled height previously
DG5315 ** determined for this station.
DG5315 ** The geoid height was determined by a new realization of GEOID03 for the
DG5315 ** epoch indicated which incorporates improved geoid heights for the
DG5315 ** Southern Louisiana Subsidence area.
DG5315 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03/).
DG5315.The orthometric height was determined by GPS observations and a
DG5315.high-resolution geoid model using precise GPS observation and
DG5315.processing techniques.
DG5315
DG5315.The PID for the CORS L1 Phase Center is DG5316.
DG5315
DG5315.The XYZ, and position/ellipsoidal ht. are equivalent.
DG5315
DG5315.The ellipsoidal height was determined by GPS observations
DG5315.and is referenced to NAD 83.
DG5315
DG5315.The geoid height was determined by GEOID03.
DG5315

DG5315; North East Units Scale Factor Converg.
DG5315;SPC LA S - 121,228.150 1,059,065.965 MT 0.99995101 +0 18 17.5
DG5315
DG5315! - Elev Factor x Scale Factor = Combined Factor
DG5315!SPC LA S - 1.00000178 x 0.99995101 = 0.99995279
DG5315
DG5315 SUPERSEDED SURVEY CONTROL
DG5315
DG5315.No superseded survey control is available for this station.
DG5315
DG5315_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYN2047575769(NAD 83)
DG5315_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
DG5315
DG5315 STATION DESCRIPTION
DG5315
DG5315'DESCRIBED BY NATIONAL GEODETIC SURVEY 2004
DG5315'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
DG5315'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
DG5315'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DG5315' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
DG5315' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.
DG5316 **********
DG5316 CORS - This is a GPS Continuously Operating Reference Station.
DG5316 DESIGNATION - HOUMA CORS L1 PHASE CENTER
DG5316 CORS_ID - HOUM
DG5316 PID - DG5316
DG5316 STATE/COUNTY- LA/TERREBONNE
DG5316 USGS QUAD - HOUMA (1980)
DG5316
DG5316 *CURRENT SURVEY CONTROL
DG5316 _____
DG5316* NAD 83(CORS)- 29 35 32.10990(N) 090 43 24.98885(W) ADJUSTED
DG5316* NAVD 88 -
DG5316 **This station is located in a subsidence area (see below).
DG5316 _____
DG5316 EPOCH DATE - 2002.00
DG5316 X - -70,099.910 (meters) COMP
DG5316 Y - -5,550,263.949 (meters) COMP
DG5316 Z - 3,131,145.171 (meters) COMP
DG5316 ELLIP HEIGHT- -11.21 (meters) (04/??/04) GPS OBS
DG5316 GEOID HEIGHT- -25.29 (meters) GEOID03
DG5316
DG5316 HORZ ORDER - SPECIAL (CORS)
DG5316 ELLP ORDER - SPECIAL (CORS)
DG5316
DG5316.ITRF positions are available for this station.
DG5316.The coordinates were established by GPS observations
DG5316.and adjusted by the National Geodetic Survey in April 2004.
DG5316.The coordinates are valid at the epoch date displayed above.
DG5316.The epoch date for horizontal control is a decimal equivalence
DG5316.of Year/Month/Day.
DG5316
DG5316 ** The orthometric height has not been validated since last determined
DG5316 ** by differential leveling and should not be used for control purposes.

DG5316 ** See www.ngs.noaa.gov/heightmod/LouisianaControl.shtml for stations in this
DG5316 ** area with valid NAVD 88 orthometric heights.
DG5316 ** The geoid height was determined by a new realization of GEOID03 for the
DG5316 ** epoch indicated which incorporates improved geoid heights for the
DG5316 ** Southern Louisiana Subsidence area.
DG5316 ** (see www.ngs.noaa.gov/PC_PROD/GEOID03/).
DG5316
DG5316.The PID for the CORS ARP is DG5315.
DG5316
DG5316.The XYZ, and position/ellipsoidal ht. are equivalent.
DG5316
DG5316.The ellipsoidal height was determined by GPS observations
DG5316.and is referenced to NAD 83.
DG5316
DG5316.The geoid height was determined by GEOID03.
DG5316
DG5316; North East Units Scale Factor Converg.
DG5316;SPC LA S - 121,228.151 1,059,065.965 MT 0.99995101 +0 18 17.5
DG5316
DG5316! - Elev Factor x Scale Factor = Combined Factor
DG5316!SPC LA S - 1.00000176 x 0.99995101 = 0.99995277
DG5316
DG5316 SUPERSEDED SURVEY CONTROL
DG5316
DG5316.No superseded survey control is available for this station.
DG5316
DG5316_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RYN2047575769(NAD 83)
DG5316_MARKER: STATION IS THE L1 PHASE CENTER OF THE GPS ANTENNA
DG5316
DG5316 STATION DESCRIPTION
DG5316
DG5316'DESCRIBED BY NATIONAL GEODETIC SURVEY
DG5316'STATION IS A GPS CORS. LATEST INFORMATION INCLUDING POSITIONS AND
DG5316'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES
ACCESSIBLE
DG5316'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
DG5316' FTP CORS.NGS.NOAA.GOV: CORS/COORD AND CORS/STATION_LOG
DG5316' HTTP://WWW.NGS.NOAA.GOV UNDER PRODUCTS AND SERVICES.

APPENDIX K

IHNC West Bank SeaLand Private Levee Survey:
(TG 4—Numerical Storm Surge Models)

Project : ipet6aihnc

Coordinate System: US State Plane 1983, Zone: Louisiana South 1702
Project Datum: NAD 1983 (Conus)
Geoid Model: GEOID03 (Conus)
Coordinate Units: US survey feet
Distance Units: US survey feet
Height Units: US survey feet NAVD88(2004.65)

Name	Northing	Easting	Elevation (ft)	Feature Code	Reference
372	547912.916	3694882.230	14.616	DIRT RIP RAP PILE	IHNCWEST.dc
373	547918.223	3694881.151	18.694	DIRT RIP RAP PILE	IHNCWEST.dc
374	547922.976	3694880.503	18.184	DIRT RIP RAP PILE	IHNCWEST.dc
375	547916.527	3694843.707	18.501	DIRT RIP RAP PILE	IHNCWEST.dc
376	547916.113	3694819.959	17.586	DIRT RIP RAP PILE	IHNCWEST.dc
377	547906.123	3694781.182	17.62	DIRT RIP RAP PILE	IHNCWEST.dc
378	547881.408	3694730.860	17.679	DIRT RIP RAP PILE	IHNCWEST.dc
379	547874.377	3694714.399	18.642	DIRT RIP RAP PILE	IHNCWEST.dc
380	547869.173	3694706.861	15.603	DIRT RIP RAP PILE	IHNCWEST.dc
381	547862.710	3694701.072	11.339	DIRT RIP RAP PILE	IHNCWEST.dc
382	547857.146	3694698.834	7.996	DIRT RIP RAP PILE	IHNCWEST.dc
383	547854.616	3694697.691	7.304	TOP CONC BAG	IHNCWEST.dc
384	547811.328	3694674.303	7.54	TOP CONC BAG	IHNCWEST.dc
385	547787.601	3694661.424	7.292	TOP CONC BAG	IHNCWEST.dc
386	547727.402	3694627.688	7.497	TOP CONC BAG	IHNCWEST.dc
387	547639.580	3694579.903	7.424	TOP CONC BAG	IHNCWEST.dc
388	547547.642	3694529.009	7.295	TOP CONC BAG	IHNCWEST.dc
389	547466.740	3694484.470	6.988	TOP CONC BAG	IHNCWEST.dc
390	547382.752	3694439.239	6.689	TOP CONC BAG	IHNCWEST.dc
391	547278.714	3694381.365	6.91	TOP CONC BAG	IHNCWEST.dc
392	547210.079	3694343.497	6.968	TOP CONC BAG	IHNCWEST.dc
393	547204.629	3694353.611	6.616	TOP CONC BAG	IHNCWEST.dc
394	547203.860	3694355.432	6.286	TOP CONC BAG	IHNCWEST.dc
395	547203.580	3694356.125	4.983	EDGE ASPHALT ROAD	IHNCWEST.dc
396	547191.628	3694376.034	5.091	EDGE ASPHALT ROAD	IHNCWEST.dc

397	547190.840	3694377.788	7.073	TOP CONC BAG	IHNCWEST.dc
398	547145.249	3694464.475	7.794	TOP CONC BAG	IHNCWEST.dc
399	547124.628	3694501.297	8.041	TOP CONC BAG	IHNCWEST.dc
400	547082.213	3694575.677	7.375	TOP CONC BAG	IHNCWEST.dc
401	547055.475	3694625.010	7.011	TOP CONC BAG	IHNCWEST.dc
402	547052.027	3694632.830	6.691	TOP CONC BAG	IHNCWEST.dc
403	547050.864	3694634.278	6.738	DIRT RIP RAP PILE	IHNCWEST.dc
404	547050.940	3694642.031	6.877	DIRT RIP RAP PILE	IHNCWEST.dc
405	547068.916	3694652.522	7.152	DIRT RIP RAP PILE	IHNCWEST.dc
406	547070.588	3694653.247	7.227	TOP CONC BAG	IHNCWEST.dc
407	547153.375	3694696.225	7.198	TOP CONC BAG	IHNCWEST.dc
408	547167.697	3694702.579	6.569	TOP CONC BAG	IHNCWEST.dc
409	547166.852	3694701.304	7.325	TOP SHEETPILING	IHNCWEST.dc
410	547261.607	3694759.067	7.917	TOP SHEETPILING	IHNCWEST.dc
411	547328.641	3694794.283	7.96	TOP SHEETPILING	IHNCWEST.dc
412	547384.349	3694821.703	7.744	TOP SHEETPILING	IHNCWEST.dc
413	547476.698	3694865.946	7.553	TOP SHEETPILING	IHNCWEST.dc
414	547546.278	3694898.471	7.653	TOP SHEETPILING	IHNCWEST.dc
415	547557.278	3694879.439	7.536	TOP SHEETPILING	IHNCWEST.dc
416	547576.177	3694888.930	7.473	TOP SHEETPILING	IHNCWEST.dc
417	547626.643	3694917.360	7.859	TOP SHEETPILING	IHNCWEST.dc
418	547626.880	3694917.273	8.226	TOP CONC FLDWALL	IHNCWEST.dc
419	547639.323	3694924.134	8.217	TOP CONC FLDWALL	IHNCWEST.dc
420	547645.812	3694913.466	8.149	TOP CONC FLDWALL	IHNCWEST.dc
421	547647.600	3694914.196	8.117	TOP CONC FLDWALL	IHNCWEST.dc
422	547648.438	3694913.013	7.76	TOP SHEETPILING	IHNCWEST.dc
423	547676.921	3694915.744	7.646	TOP SHEETPILING	IHNCWEST.dc
424	547677.358	3694916.154	7.093	TOP CONC BAG	IHNCWEST.dc
425	547737.677	3694917.597	6.854	TOP CONC BAG	IHNCWEST.dc
426	547784.558	3694913.980	7.208	TOP CONC BAG	IHNCWEST.dc
427	547840.372	3694904.411	7.089	TOP CONC BAG	IHNCWEST.dc
428	547858.213	3694898.703	7.054	TOP CONC BAG	IHNCWEST.dc
429	547876.459	3694890.973	6.532	TOP CONC BAG	IHNCWEST.dc
430	547880.218	3694888.523	6.599	DIRT RIP RAP PILE	IHNCWEST.dc
431	547900.171	3694885.169	6.923	DIRT RIP RAP PILE	IHNCWEST.dc
432	547051.073	3694641.383	6.889	DIRT RIP RAP PILE	IHNCWEST.dc
433	547039.868	3694650.531	11.929	TOE	IHNCWEST.dc
434	547045.819	3694652.928	15.473	TOP SPILE DAUPHIN	IHNCWEST.dc
435	547045.420	3694653.274	14.427	DAUPHIN DIRT FILLED	IHNCWEST.dc
436	547022.382	3694672.604	14.612	DAUPHIN DIRT FILLED	IHNCWEST.dc
437	546986.497	3694737.885	12.926	DAUPHIN DIRT FILLED	IHNCWEST.dc
438	546956.831	3694792.458	14.544	DAUPHIN DIRT FILLED	IHNCWEST.dc
439	546915.808	3694867.677	13.602	DAUPHIN DIRT FILLED	IHNCWEST.dc
440	546902.779	3694894.842	14.606	DAUPHIN DIRT FILLED	IHNCWEST.dc
441	546901.687	3694894.416	15.212	TOP SPILE DAUPHIN	IHNCWEST.dc
442	546902.715	3694895.125	15.303	EDGE CONC FLDWALL	IHNCWEST.dc
443	546901.880	3694896.180	15.343	TOP CONC FLDWALL	IHNCWEST.dc

444	546901.780	3694896.400	14.362	TOP CONC FLDWALL	IHNCWEST.dc
445	546889.194	3694920.820	14.384	TOP CONC FLDWALL	IHNCWEST.dc
446	546877.690	3694941.418	14.361	TOP CONC FLDWALL	IHNCWEST.dc
447	546877.594	3694941.698	14.703	TOP CONC FLDWALL	IHNCWEST.dc
448	546829.377	3695030.006	14.425	TOP CONC FLDWALL	IHNCWEST.dc
449	546794.179	3695094.218	14.332	TOP CONC FLDWALL	IHNCWEST.dc
450	546779.878	3695120.103	14.228	TOP CONC FLDWALL	IHNCWEST.dc
451	546780.163	3695119.981	14.201	FLDWALL BLOWOUT	IHNCWEST.dc
452	546778.382	3695125.292	13.951	FLDWALL BLOWOUT	IHNCWEST.dc
453	546777.714	3695126.199	10.296	FLDWALL BLOWOUT	IHNCWEST.dc
454	546774.095	3695130.356	9.177	FLDWALL BLOWOUT	IHNCWEST.dc
455	546773.089	3695132.717	13.949	FLDWALL BLOWOUT	IHNCWEST.dc
456	546772.410	3695133.861	14.038	TOP CONC FLDWALL	IHNCWEST.dc
457	546770.373	3695137.673	14.015	TOP CONC FLDWALL	IHNCWEST.dc
458	546683.064	3695175.185	14.3	TOP CONC FLDWALL	IHNCWEST.dc
459	546603.442	3695209.189	14.07	TOP CONC FLDWALL	IHNCWEST.dc
460	546508.649	3695249.567	14.339	TOP CONC FLDWALL	IHNCWEST.dc
461	546441.681	3695269.167	14.524	TOP CONC FLDWALL	IHNCWEST.dc
462	546358.495	3695293.246	14.623	TOP CONC FLDWALL	IHNCWEST.dc
463	546320.842	3695304.232	14.738	TOP CONC FLDWALL	IHNCWEST.dc
464	546316.527	3695302.768	14.704	TOP CONC FLDWALL	IHNCWEST.dc
465	546316.197	3695302.737	14.325	TOP CONC FLDWALL	IHNCWEST.dc
466	546239.767	3695269.744	14.333	TOP CONC FLDWALL	IHNCWEST.dc
467	546141.224	3695227.140	14.305	TOP CONC FLDWALL	IHNCWEST.dc
468	546079.049	3695240.574	14.283	TOP CONC FLDWALL	IHNCWEST.dc
469	546025.952	3695252.281	14.314	TOP CONC FLDWALL	IHNCWEST.dc
470	545958.194	3695273.473	14.281	TOP CONC FLDWALL	IHNCWEST.dc
471	545883.573	3695296.777	14.298	TOP CONC FLDWALL	IHNCWEST.dc
472	545865.279	3695292.357	14.301	TOP CONC FLDWALL	IHNCWEST.dc
473	545773.469	3695271.470	14.303	TOP CONC FLDWALL	IHNCWEST.dc
474	545773.289	3695271.480	14.776	TOP CONC FLDWALL	IHNCWEST.dc
475	545768.231	3695270.291	14.759	TOP CONC FLDWALL	IHNCWEST.dc
476	545732.727	3695276.586	14.712	TOP CONC FLDWALL	IHNCWEST.dc
477	545676.514	3695245.824	14.796	TOP CONC FLDWALL	IHNCWEST.dc
478	545606.175	3695207.574	14.657	TOP CONC FLDWALL	IHNCWEST.dc
479	545544.455	3695225.323	14.817	TOP CONC FLDWALL	IHNCWEST.dc
480	545544.136	3695225.031	15.031	TOP CONC FLDWALL	IHNCWEST.dc
481	545536.900	3695227.193	15.111	EDGE CONC FLDWALL	IHNCWEST.dc
482	545536.731	3695227.253	9.534	TOE FLDGATE	IHNCWEST.dc
483	545490.887	3695240.721	9.492	TOE FLDGATE	IHNCWEST.dc
484	545490.787	3695240.753	15.053	EDGE CONC FLDWALL	IHNCWEST.dc
485	545483.680	3695242.911	15.046	TOP CONC FLDWALL	IHNCWEST.dc
486	545483.439	3695243.031	14.796	TOP CONC FLDWALL	IHNCWEST.dc
487	545472.874	3695246.115	14.82	TOP CONC FLDWALL	IHNCWEST.dc
488	545483.957	3695285.182	14.735	TOP CONC FLDWALL	IHNCWEST.dc
489	545422.696	3695302.883	14.679	TOP CONC FLDWALL	IHNCWEST.dc
490	545339.877	3695327.079	14.768	TOP CONC FLDWALL	IHNCWEST.dc

491	545256.406	3695351.377	14.56	TOP CONC FLDWALL	IHNCWEST.dc
492	545173.364	3695375.331	14.478	TOP CONC FLDWALL	IHNCWEST.dc
493	545089.939	3695399.533	14.629	TOP CONC FLDWALL	IHNCWEST.dc
494	545006.722	3695423.617	14.642	TOP CONC FLDWALL	IHNCWEST.dc
495	544923.650	3695447.716	14.566	TOP CONC FLDWALL	IHNCWEST.dc
496	544855.617	3695467.154	14.743	TOP CONC FLDWALL	IHNCWEST.dc
497	544855.264	3695467.253	15.155	TOP CONC FLDWALL	IHNCWEST.dc
498	544849.404	3695468.858	15.155	EDGE CONC FLDWALL	IHNCWEST.dc
499	544849.185	3695469.010	9.893	TOE FLDWALL	IHNCWEST.dc
500	544774.187	3695490.859	9.864	TOE FLDWALL	IHNCWEST.dc
501	544773.992	3695490.785	15.114	EDGE CONC FLDWALL	IHNCWEST.dc
502	544768.085	3695492.390	15.133	TOP CONC FLDWALL	IHNCWEST.dc
503	544767.776	3695492.581	14.615	TOP CONC FLDWALL	IHNCWEST.dc
504	544753.415	3695497.318	14.623	TOP CONC FLDWALL	IHNCWEST.dc
505	544756.011	3695506.179	14.636	TOP CONC FLDWALL	IHNCWEST.dc
506	544694.546	3695524.083	14.545	TOP CONC FLDWALL	IHNCWEST.dc
507	544611.340	3695548.210	14.504	TOP CONC FLDWALL	IHNCWEST.dc
508	544528.151	3695572.363	14.608	TOP CONC FLDWALL	IHNCWEST.dc
509	544462.401	3695591.500	14.733	TOP CONC FLDWALL	IHNCWEST.dc
510	544462.170	3695591.588	14.307	TOP CONC FLDWALL	IHNCWEST.dc
511	544389.642	3695612.532	14.378	TOP CONC FLDWALL	IHNCWEST.dc
512	544389.511	3695612.636	14.762	TOP CONC FLDWALL	IHNCWEST.dc
513	544314.165	3695634.367	14.63	TOP CONC FLDWALL	IHNCWEST.dc
514	544236.402	3695623.658	14.736	TOP CONC FLDWALL	IHNCWEST.dc
515	544221.415	3695573.142	14.769	TOP CONC FLDWALL	IHNCWEST.dc
516	544162.026	3695590.188	14.764	TOP CONC FLDWALL	IHNCWEST.dc
517	544161.958	3695590.386	15.11	TOP CONC FLDWALL	IHNCWEST.dc
518	544155.939	3695592.199	15.145	EDGE CONC FLDWALL	IHNCWEST.dc
519	544155.659	3695592.201	8.666	TOE CONC FLDWALL	IHNCWEST.dc
520	544114.990	3695604.000	8.604	TOE CONC FLDWALL	IHNCWEST.dc
521	544114.852	3695604.048	14.977	EDGE CONC FLDWALL	IHNCWEST.dc
522	544108.833	3695605.793	15.096	TOP CONC FLDWALL	IHNCWEST.dc
523	544108.555	3695605.978	14.742	TOP CONC FLDWALL	IHNCWEST.dc
524	544026.205	3695629.949	14.599	TOP CONC FLDWALL	IHNCWEST.dc
525	544034.667	3695659.026	14.699	TOP CONC FLDWALL	IHNCWEST.dc
526	544031.529	3695660.114	14.716	TOP CONC FLDWALL	IHNCWEST.dc
527	544031.390	3695660.244	14.207	TOP CONC FLDWALL	IHNCWEST.dc
528	543968.818	3695678.118	14.259	TOP CONC FLDWALL	IHNCWEST.dc
529	543968.321	3695677.694	15.044	TOP CONC FLDWALL	IHNCWEST.dc
530	543961.906	3695680.087	15.033	EDGE CONC FLDWALL	IHNCWEST.dc
531	543961.887	3695679.937	9.68	TOE CONC FLDWALL	IHNCWEST.dc
532	543906.260	3695696.217	9.707	TOE CONC FLDWALL	IHNCWEST.dc
533	543906.017	3695696.111	15.029	EDGE CONC FLDWALL	IHNCWEST.dc
534	543899.446	3695698.284	15.089	TOP CONC FLDWALL	IHNCWEST.dc
535	543899.260	3695698.349	14.32	TOP CONC FLDWALL	IHNCWEST.dc
536	543849.579	3695712.862	14.251	TOP CONC FLDWALL	IHNCWEST.dc
537	543849.346	3695712.868	14.712	TOP CONC FLDWALL	IHNCWEST.dc

538	543843.687	3695714.527	14.756	TOP CONC FLDWALL	IHNCWEST.dc
539	543851.451	3695740.340	14.732	TOP CONC FLDWALL	IHNCWEST.dc
540	543847.606	3695741.353	14.731	TOP CONC FLDWALL	IHNCWEST.dc
541	543847.446	3695741.465	14.229	TOP CONC FLDWALL	IHNCWEST.dc
542	543799.373	3695755.428	14.233	TOP CONC FLDWALL	IHNCWEST.dc
543	543732.465	3695774.731	14.293	TOP CONC FLDWALL	IHNCWEST.dc
544	543732.252	3695774.767	14.459	TOP CONC FLDWALL	IHNCWEST.dc
545	543727.407	3695776.228	14.515	TOP CONC FLDWALL	IHNCWEST.dc
546	543690.054	3695803.593	14.137	TOP CONC FLDWALL	IHNCWEST.dc
547	543627.592	3695821.559	14.289	TOP CONC FLDWALL	IHNCWEST.dc
548	543544.298	3695845.739	14.357	TOP CONC FLDWALL	IHNCWEST.dc
549	543461.129	3695869.751	14.181	TOP CONC FLDWALL	IHNCWEST.dc
550	543405.912	3695885.737	14.229	TOP CONC FLDWALL	IHNCWEST.dc
551	543371.582	3695895.836	14.298	TOP CONC FLDWALL	IHNCWEST.dc
552	543364.985	3695873.645	14.412	TOP CONC FLDWALL	IHNCWEST.dc
553	543311.009	3695889.246	14.757	TOP CONC FLDWALL	IHNCWEST.dc
554	543310.693	3695889.220	15.072	TOP CONC FLDWALL	IHNCWEST.dc
555	543304.187	3695891.075	15.087	EDGE CONC FLDWALL	IHNCWEST.dc
556	543304.109	3695890.980	9.913	TOE CONC FLDWALL	IHNCWEST.dc
557	543262.983	3695903.164	9.887	TOE CONC FLDWALL	IHNCWEST.dc
558	543262.843	3695903.222	15.031	EDGE CONC FLDWALL	IHNCWEST.dc
559	543256.049	3695905.056	15.097	TOP CONC FLDWALL	IHNCWEST.dc
560	543255.872	3695905.207	14.706	TOP CONC FLDWALL	IHNCWEST.dc
561	543237.110	3695911.031	14.699	TOP CONC FLDWALL	IHNCWEST.dc
562	543249.551	3695953.507	14.617	TOP CONC FLDWALL	IHNCWEST.dc
563	543245.540	3695954.665	14.679	TOP CONC FLDWALL	IHNCWEST.dc
564	543245.421	3695954.771	14.272	TOP CONC FLDWALL	IHNCWEST.dc
565	543132.348	3695987.685	14.162	TOP CONC FLDWALL	IHNCWEST.dc
566	543055.156	3696010.207	14.209	TOP CONC FLDWALL	IHNCWEST.dc
567	543024.126	3696018.994	14.174	TOP CONC FLDWALL	IHNCWEST.dc
568	543023.978	3696019.035	14.501	TOP CONC FLDWALL	IHNCWEST.dc
569	543020.115	3696020.146	14.477	TOP CONC FLDWALL	IHNCWEST.dc
570	543014.052	3695999.446	14.444	TOP CONC FLDWALL	IHNCWEST.dc
571	542927.360	3696026.945	14.452	TOP CONC FLDWALL	IHNCWEST.dc
572	542846.117	3696052.295	14.132	TOP CONC FLDWALL	IHNCWEST.dc
573	542763.757	3696027.435	14.209	TOP CONC FLDWALL	IHNCWEST.dc
574	542680.897	3696002.078	14.177	TOP CONC FLDWALL	IHNCWEST.dc
575	542597.164	3695977.047	14.086	TOP CONC FLDWALL	IHNCWEST.dc
576	542514.205	3695951.631	13.991	TOP CONC FLDWALL	IHNCWEST.dc
577	542431.572	3695926.246	13.986	TOP CONC FLDWALL	IHNCWEST.dc
578	542348.199	3695901.095	13.934	TOP CONC FLDWALL	IHNCWEST.dc
579	542264.966	3695875.846	14.278	TOP CONC FLDWALL	IHNCWEST.dc
580	542214.013	3695860.355	14.674	TOP CONC FLDWALL	IHNCWEST.dc
581	542207.835	3695881.019	14.729	TOP CONC FLDWALL	IHNCWEST.dc
582	542203.504	3695879.775	14.698	TOP CONC FLDWALL	IHNCWEST.dc
583	542203.247	3695879.684	13.02	TOP CONC FLDWALL	IHNCWEST.dc
584	542170.705	3695872.120	13.628	TOP CONC FLDWALL	IHNCWEST.dc

585	542169.868	3695872.674	12.695	TOP CONC FLDWALL	IHNCWEST.dc
586	542165.643	3695871.689	12.67	TOP CONC FLDWALL	IHNCWEST.dc
587	542165.464	3695871.591	13.118	TOP CONC FLDWALL	IHNCWEST.dc
588	542163.752	3695870.750	13.103	EDGE CONC FLDWALL	IHNCWEST.dc
589	542163.793	3695870.429	9.653	TOE CONC FLDWALL	IHNCWEST.dc
590	542119.989	3695860.170	9.698	TOE CONC FLDWALL	IHNCWEST.dc
591	542119.854	3695860.147	13.268	EDGE CONC FLDWALL	IHNCWEST.dc
592	542118.104	3695860.012	13.262	TOP CONC FLDWALL	IHNCWEST.dc
593	542117.794	3695860.056	12.78	TOP CONC FLDWALL	IHNCWEST.dc
594	542064.425	3695846.968	12.768	TOP CONC FLDWALL	IHNCWEST.dc
595	542063.856	3695846.621	12.992	TOP CONC FLDWALL	IHNCWEST.dc
596	542015.670	3695834.946	12.321	TOP CONC FLDWALL	IHNCWEST.dc
597	541948.068	3695817.860	11.891	TOP CONC FLDWALL	IHNCWEST.dc
598	541860.459	3695796.217	11.795	TOP CONC FLDWALL	IHNCWEST.dc
599	541773.818	3695774.719	12.106	TOP CONC FLDWALL	IHNCWEST.dc
600	541686.772	3695752.884	12.025	TOP CONC FLDWALL	IHNCWEST.dc
601	541599.407	3695731.764	12.141	TOP CONC FLDWALL	IHNCWEST.dc
602	541540.883	3695717.254	12.56	TOP CONC FLDWALL	IHNCWEST.dc
603	541516.786	3695711.296	13.07	TOP CONC FLDWALL	IHNCWEST.dc
604	541516.260	3695711.242	12.382	TOP CONC FLDWALL	IHNCWEST.dc
605	541462.198	3695697.780	12.631	TOP CONC FLDWALL	IHNCWEST.dc
606	541461.947	3695697.567	13.216	TOP CONC FLDWALL	IHNCWEST.dc
607	541460.163	3695696.487	13.214	EDGE CONC FLDWALL	IHNCWEST.dc
608	541460.133	3695696.656	10.072	TOE CONC FLDWALL	IHNCWEST.dc
609	541416.331	3695685.665	10.063	TOE CONC FLDWALL	IHNCWEST.dc
610	541416.274	3695685.501	13.215	EDGE CONC FLDWALL	IHNCWEST.dc
611	541414.458	3695685.422	13.266	TOP CONC FLDWALL	IHNCWEST.dc
612	541414.296	3695685.368	12.68	TOP CONC FLDWALL	IHNCWEST.dc
613	541387.441	3695678.770	12.455	TOP CONC FLDWALL	IHNCWEST.dc
614	541377.737	3695662.619	12.514	TOP CONC FLDWALL	IHNCWEST.dc
615	541374.256	3695665.058	12.495	TOP CONC FLDWALL	IHNCWEST.dc
616	541374.090	3695664.804	13.22	TOP CONC FLDWALL	IHNCWEST.dc
617	541372.367	3695665.404	13.205	EDGE CONC FLDWALL	IHNCWEST.dc
618	541372.536	3695666.246	7.539	TOE CONC FLDWALL	IHNCWEST.dc
619	541358.176	3695674.866	7.574	TOE CONC FLDWALL	IHNCWEST.dc
620	541357.688	3695674.287	13.216	EDGE CONC FLDWALL	IHNCWEST.dc
621	541356.335	3695675.516	13.258	TOP CONC FLDWALL	IHNCWEST.dc
622	541356.101	3695675.709	12.514	TOP CONC FLDWALL	IHNCWEST.dc
623	541314.783	3695700.616	12.497	TOP CONC FLDWALL	IHNCWEST.dc
624	541312.705	3695701.520	12.505	TOP CONC FLDWALL	IHNCWEST.dc
625	541307.731	3695693.673	12.479	END CONC FLDWALL	IHNCWEST.dc
626	541202.685	3695756.733	12.453	END CONC FLDWALL	IHNCWEST.dc
627	541158.762	3695782.918	12.555	TOP CONC FLDWALL	IHNCWEST.dc
628	541128.356	3695732.270	12.546	TOP CONC FLDWALL	IHNCWEST.dc
629	541102.229	3695688.129	12.503	TOP CONC FLDWALL	IHNCWEST.dc
630	541106.130	3695670.937	12.592	TOP CONC FLDWALL	IHNCWEST.dc
631	541105.654	3695670.989	12.605	TOP CONC FLDWALL	IHNCWEST.dc

632	541105.443	3695670.709	21.175	TOP CONC FLDWALL	IHNCWEST.dc
633	541103.181	3695669.471	21.165	EDGE CONC FLDWALL	IHNCWEST.dc
634	541102.494	3695669.819	5.245	TOE FLDGATE	IHNCWEST.dc
635	541071.048	3695663.199	5.117	TOE FLDGATE	IHNCWEST.dc
636	541071.046	3695663.082	13.339	EDGE CONC FLDWALL	IHNCWEST.dc
637	541071.848	3695660.733	13.315	TOP CONC FLDWALL	IHNCWEST.dc
638	541071.862	3695660.524	12.545	TOP CONC FLDWALL	IHNCWEST.dc
639	541079.498	3695633.923	12.488	TOP CONC FLDWALL	IHNCWEST.dc
640	541075.391	3695632.680	12.5	TOP CONC FLDWALL	IHNCWEST.dc
641	541075.206	3695633.792	12.513	TOP CONC FLDWALL	IHNCWEST.dc
642	541042.133	3695625.585	12.406	TOP CONC FLDWALL	IHNCWEST.dc
643	541056.473	3695567.238	12.512	TOP CONC FLDWALL	IHNCWEST.dc
644	541047.064	3695541.634	12.58	TOP CONC FLDWALL	IHNCWEST.dc
645	541047.026	3695541.519	13.14	TOP CONC FLDWALL	IHNCWEST.dc
646	541046.439	3695539.784	13.14	TOP CONC FLDWALL	IHNCWEST.dc
647	541046.362	3695539.556	12.516	TOP CONC FLDWALL	IHNCWEST.dc
648	541036.225	3695511.980	12.523	TOP CONC FLDWALL	IHNCWEST.dc
649	541036.682	3695511.863	16.757	TOP CONC FLDWALL	IHNCWEST.dc
650	541035.903	3695509.933	16.669	EDGE CONC FLDWALL	IHNCWEST.dc
651	541034.882	3695509.515	7.844	TOE FLDGATE	IHNCWEST.dc
652	541025.364	3695483.389	7.715	TOE FLDGATE	IHNCWEST.dc
653	541025.978	3695482.738	13.772	EDGE CONC FLDWALL	IHNCWEST.dc
654	541024.750	3695481.208	13.823	TOP CONC FLDWALL	IHNCWEST.dc
655	541024.716	3695480.932	12.474	TOP CONC FLDWALL	IHNCWEST.dc
656	541022.712	3695476.055	12.475	TOP CONC FLDWALL	IHNCWEST.dc
657	541008.847	3695472.678	12.576	TOP CONC FLDWALL	IHNCWEST.dc
658	541008.782	3695472.445	13.977	TOP CONC FLDWALL	IHNCWEST.dc
659	540975.950	3695464.550	13.721	TOP CONC FLDWALL	IHNCWEST.dc
660	540975.487	3695464.574	12.572	TOP CONC FLDWALL	IHNCWEST.dc
661	540889.571	3695380.953	6.394	TOP CONC FLDWALL	IHNCWEST.dc
662	540886.929	3695441.897	12.547	EDGE CONC FLDWALL	IHNCWEST.dc
663	540884.386	3695440.224	0.109	TOE FLDGATE	IHNCWEST.dc
664	540845.785	3695430.775	0.228	TOE FLDGATE	IHNCWEST.dc
665	540842.925	3695430.668	12.605	EDGE CONC FLDWALL	IHNCWEST.dc
667	540810.110	3695423.034	12.834	TOP CONC FLDWALL	IHNCWEST.dc
668	540809.269	3695423.343	12.785	TOP CONC FLDWALL	IHNCWEST.dc
669	540801.934	3695420.843	12.71	EDGE CONC FLDWALL	IHNCWEST.dc
IHNC5	541419.065	3695686.944	9.955	CHISELED X	IHNCWEST.dc
IHNC6	541436.976	3695528.228	4.949	PK NAIL	IHNCWEST.dc
IHNC7	540899.418	3695300.305	0.569	PK NAIL	IHNCWEST.dc
IHNC8	540944.193	3695118.094	-0.345	PK NAIL	IHNCWEST.dc
OP17	542897.979	3688637.665	-2.146	RTK BASE	IHNCWEST.dc
TBM FRANCE	543277.042	3694356.363	4.528	CHK	IHNCWEST.dc

APPENDIX L

IHNC West Bank Breach Area Surveys (Florida Ave to I-10 Bridge): (TG 2/3—Interior Drainage Modeling)

3001®
the geospatial company

Coordinate System: US State Plane 1983 Zone: Louisiana South 1702
Project Datum: NAD 1983 (Conus)
Vertical Datum: Geoid ModelGEOID03 (Conus)
Coordinate Units: US survey feet
Distance Units: US survey feet
Height Units: US survey feet NAVD88(2004.65)

				FRANCE-RD.	
Name	Northing	Easting	Elevation	Location	Reference
OP17	542897.979	3688637.665	-2.146	RTK BASE	IHNCFRANCERD.dc
TBM FRANCE	543277.004	3694356.181	4.617	CHK	IHNCFRANCERD.dc
IHNC2	549241.345	3694222.178	11.942	HUB AND TACK	IHNCFRANCERD.dc
IHNC1	548991.459	3693868.933	4.351	SPIKE NAIL	IHNCFRANCERD.dc
100	549420.940	3694236.626	12.405	TOP CONC FLDWALL	IHNCFRANCERD.dc
101	549418.778	3694236.473	4.244	TOE FLDGATE	IHNCFRANCERD.dc
102	549387.878	3694245.774	4.662	TOE FLDGATE	IHNCFRANCERD.dc
103	549385.802	3694246.873	12.459	TOP CONC FLDWALL	IHNCFRANCERD.dc
104	549376.642	3694249.920	12.419	TOP CONC FLDWALL	IHNCFRANCERD.dc
105	549376.410	3694249.950	13.200	TOP CONC FLDWALL	IHNCFRANCERD.dc
106	549375.550	3694250.661	13.190	TOP CONC FLDWALL	IHNCFRANCERD.dc
107	549344.991	3694259.828	12.916	TOP CONC FLDWALL	IHNCFRANCERD.dc
108	549325.452	3694265.081	12.730	END FLDWALL	IHNCFRANCERD.dc
109	549324.794	3694265.360	12.733	C\L LEVEE	IHNCFRANCERD.dc
110	549315.936	3694266.330	12.957	EDGE RAMP	IHNCFRANCERD.dc
111	549299.259	3694266.273	11.734	C\L RAMP	IHNCFRANCERD.dc
112	549283.846	3694260.652	11.741	EDGE RAMP	IHNCFRANCERD.dc
113	549262.726	3694245.799	12.023	C\L LEVEE	IHNCFRANCERD.dc
114	549193.324	3694168.874	12.432	C\L LEVEE	IHNCFRANCERD.dc
115	549152.951	3694118.092	12.251	C\L LEVEE	IHNCFRANCERD.dc
116	549127.737	3694081.393	12.159	C\L LEVEE	IHNCFRANCERD.dc
117	549095.069	3694026.867	12.116	C\L LEVEE	IHNCFRANCERD.dc
118	549064.337	3693973.451	11.905	C\L LEVEE	IHNCFRANCERD.dc
119	549064.005	3693972.611	11.870	EDGE CONC FLDWALL	IHNCFRANCERD.dc
120	549062.412	3693966.582	12.014	TOP CONC FLDWALL	IHNCFRANCERD.dc
121	548995.184	3693940.362	12.075	TOP CONC FLDWALL	IHNCFRANCERD.dc
122	548942.261	3693918.986	12.621	TOP CONC FLDWALL	IHNCFRANCERD.dc
123	548899.592	3693923.047	12.844	TOP CONC FLDWALL	IHNCFRANCERD.dc
124	548856.889	3693926.786	13.007	TOP CONC FLDWALL	IHNCFRANCERD.dc
125	548856.412	3693926.688	12.502	TOP CONC FLDWALL	IHNCFRANCERD.dc

126	548843.645	3693927.513	12.514	TOP CONC FLDWALL	IHNCFRANCERD.dc
127	548843.147	3693925.115	12.540	TOP CONC FLDWALL	IHNCFRANCERD.dc
128	548841.085	3693907.953	12.495	TOP CONC FLDWALL	IHNCFRANCERD.dc
129	548841.187	3693905.651	3.164	TOE FLDGATE	IHNCFRANCERD.dc
130	548839.442	3693888.979	3.292	TOE FLDGATE	IHNCFRANCERD.dc
131	548838.678	3693886.792	12.495	TOP CONC FLDWALL	IHNCFRANCERD.dc
132	548837.338	3693876.982	12.508	TOP CONC FLDWALL	IHNCFRANCERD.dc
133	548835.435	3693876.858	12.509	TOP CONC FLDWALL	IHNCFRANCERD.dc
134	548834.172	3693865.725	12.456	TOP CONC FLDWALL	IHNCFRANCERD.dc
135	548773.677	3693870.585	12.416	TOP CONC FLDWALL	IHNCFRANCERD.dc
136	548771.921	3693856.475	12.383	END CONC FLDWALL	IHNCFRANCERD.dc
137	548771.926	3693855.775	12.002	TOE	IHNCFRANCERD.dc
138	548771.653	3693853.368	12.259	EDGE ASPHALT ROAD	IHNCFRANCERD.dc
139	548769.598	3693842.840	12.230	C\L ROAD	IHNCFRANCERD.dc
140	548768.768	3693829.190	12.039	EDGE ASPHALT ROAD	IHNCFRANCERD.dc
141	548767.289	3693819.403	11.908	NG	IHNCFRANCERD.dc
142	548767.873	3693803.727	12.648	EDGE ASPHALT ROAD	IHNCFRANCERD.dc
143	548767.486	3693792.657	12.589	C\L ROAD	IHNCFRANCERD.dc
144	548766.924	3693779.375	12.390	EDGE ASPHALT ROAD	IHNCFRANCERD.dc
145	548766.467	3693776.991	12.509	C\L LEVEE	IHNCFRANCERD.dc
146	548766.089	3693772.087	12.784	C\L LEVEE	IHNCFRANCERD.dc
147	548764.431	3693759.245	11.999	C\L LEVEE	IHNCFRANCERD.dc
148	548762.255	3693740.499	12.241	C\L LEVEE	IHNCFRANCERD.dc
149	548754.711	3693662.479	12.004	C\L LEVEE	IHNCFRANCERD.dc
150	548746.637	3693587.222	12.249	C\L LEVEE	IHNCFRANCERD.dc
151	548744.769	3693586.817	12.247	END CONC FLDWALL	IHNCFRANCERD.dc
152	548741.803	3693557.997	12.807	TOP CONC FLDWALL	IHNCFRANCERD.dc
153	548718.165	3693557.006	12.959	TOP CONC FLDWALL	IHNCFRANCERD.dc
154	548655.300	3693562.948	13.198	TOP CONC FLDWALL	IHNCFRANCERD.dc
155	548618.191	3693566.604	13.033	TOP CONC FLDWALL	IHNCFRANCERD.dc
156	548537.138	3693574.456	12.994	TOP CONC FLDWALL	IHNCFRANCERD.dc
157	548446.641	3693582.900	12.982	TOP CONC FLDWALL	IHNCFRANCERD.dc
158	548356.582	3693591.715	12.905	TOP CONC FLDWALL	IHNCFRANCERD.dc
159	548266.877	3693600.169	12.850	TOP CONC FLDWALL	IHNCFRANCERD.dc
160	548178.012	3693608.679	12.889	TOP CONC FLDWALL	IHNCFRANCERD.dc
161	548085.885	3693617.445	12.954	TOP CONC FLDWALL	IHNCFRANCERD.dc
162	547996.975	3693625.663	13.183	TOP CONC FLDWALL	IHNCFRANCERD.dc
163	547907.336	3693634.085	13.209	TOP CONC FLDWALL	IHNCFRANCERD.dc
164	547818.484	3693642.773	13.186	TOP CONC FLDWALL	IHNCFRANCERD.dc
165	547729.398	3693651.494	13.123	TOP CONC FLDWALL	IHNCFRANCERD.dc
166	547639.726	3693659.764	13.105	TOP CONC FLDWALL	IHNCFRANCERD.dc
167	547549.869	3693668.426	13.182	TOP CONC FLDWALL	IHNCFRANCERD.dc
168	547490.778	3693673.890	13.213	TOP CONC FLDWALL	IHNCFRANCERD.dc
169	547401.636	3693682.335	13.302	TOP CONC FLDWALL	IHNCFRANCERD.dc
170	547311.766	3693690.944	13.342	TOP CONC FLDWALL	IHNCFRANCERD.dc
171	547222.966	3693699.599	13.273	TOP CONC FLDWALL	IHNCFRANCERD.dc
172	547133.512	3693708.238	13.264	TOP CONC FLDWALL	IHNCFRANCERD.dc

173	547044.383	3693716.382	13.301	TOP CONC FLDWALL	IHNCFRANCERD.dc
174	546954.803	3693724.958	13.357	TOP CONC FLDWALL	IHNCFRANCERD.dc
175	546833.370	3693736.621	13.211	TOP CONC FLDWALL	IHNCFRANCERD.dc
176	546743.739	3693745.160	13.178	TOP CONC FLDWALL	IHNCFRANCERD.dc
177	546713.970	3693747.798	13.217	TOP CONC FLDWALL	IHNCFRANCERD.dc
178	546683.701	3693749.765	13.232	TOP CONC FLDWALL	IHNCFRANCERD.dc
179	546608.189	3693755.429	13.333	TOP CONC FLDWALL	IHNCFRANCERD.dc
180	546535.245	3693771.228	13.357	TOP CONC FLDWALL	IHNCFRANCERD.dc
181	546447.365	3693790.414	13.260	TOP CONC FLDWALL	IHNCFRANCERD.dc
182	546329.997	3693816.673	13.216	TOP CONC FLDWALL	IHNCFRANCERD.dc
183	546242.059	3693836.144	13.185	TOP CONC FLDWALL	IHNCFRANCERD.dc
184	546153.497	3693855.829	13.249	TOP CONC FLDWALL	IHNCFRANCERD.dc
185	546064.060	3693875.415	13.191	TOP CONC FLDWALL	IHNCFRANCERD.dc
186	545974.274	3693895.217	13.226	TOP CONC FLDWALL	IHNCFRANCERD.dc
187	545885.621	3693914.783	13.234	TOP CONC FLDWALL	IHNCFRANCERD.dc
188	545795.584	3693935.091	13.099	TOP CONC FLDWALL	IHNCFRANCERD.dc
189	545706.968	3693954.652	13.156	TOP CONC FLDWALL	IHNCFRANCERD.dc
190	545677.537	3693961.096	13.135	TOP CONC FLDWALL	IHNCFRANCERD.dc
191	545648.301	3693967.816	13.245	TOP CONC FLDWALL	IHNCFRANCERD.dc
192	545559.999	3693987.188	13.031	TOP CONC FLDWALL	IHNCFRANCERD.dc
193	545471.866	3694006.246	12.983	TOP CONC FLDWALL	IHNCFRANCERD.dc
194	545384.365	3694025.938	13.070	TOP CONC FLDWALL	IHNCFRANCERD.dc
195	545295.948	3694045.868	12.875	TOP CONC FLDWALL	IHNCFRANCERD.dc
196	545209.891	3694064.789	12.822	TOP CONC FLDWALL	IHNCFRANCERD.dc
197	545119.410	3694084.750	12.685	TOP CONC FLDWALL	IHNCFRANCERD.dc
198	545030.891	3694104.213	12.738	TOP CONC FLDWALL	IHNCFRANCERD.dc
199	544971.729	3694117.348	12.901	TOP CONC FLDWALL	IHNCFRANCERD.dc
200	544884.271	3694136.819	12.918	TOP CONC FLDWALL	IHNCFRANCERD.dc
201	544796.235	3694156.454	12.811	TOP CONC FLDWALL	IHNCFRANCERD.dc
202	544708.787	3694175.696	12.859	TOP CONC FLDWALL	IHNCFRANCERD.dc
203	544620.407	3694195.262	13.028	TOP CONC FLDWALL	IHNCFRANCERD.dc
204	544532.578	3694214.701	12.986	TOP CONC FLDWALL	IHNCFRANCERD.dc
205	544444.854	3694233.946	13.187	TOP CONC FLDWALL	IHNCFRANCERD.dc
206	544357.144	3694253.365	13.083	TOP CONC FLDWALL	IHNCFRANCERD.dc
207	544269.644	3694272.879	13.107	TOP CONC FLDWALL	IHNCFRANCERD.dc
208	544181.200	3694292.161	12.970	TOP CONC FLDWALL	IHNCFRANCERD.dc
209	544123.610	3694304.529	12.793	END CONC FLDWALL	IHNCFRANCERD.dc
210	544122.323	3694304.550	4.524	TOE-END FLDWALL	IHNCFRANCERD.dc
211	544178.202	3694335.091	1.621	NG	IHNCFRANCERD.dc
212	544172.876	3694325.084	1.559	TOE	IHNCFRANCERD.dc
213	544166.246	3694309.683	2.962	SLOPE	IHNCFRANCERD.dc
214	544162.693	3694296.548	6.203	TOE	IHNCFRANCERD.dc
215	544162.386	3694296.511	12.885	TOP CONC FLDWALL	IHNCFRANCERD.dc
216	544156.664	3694295.468	4.012	TOE	IHNCFRANCERD.dc
217	544154.572	3694280.059	3.857	TOP	IHNCFRANCERD.dc
218	544152.672	3694271.802	2.103	TOE	IHNCFRANCERD.dc
219	544151.998	3694267.262	2.694	TOP OF RAIL	IHNCFRANCERD.dc

220	544150.601	3694262.748	2.554	TOP OF RAIL	IHNCFRANCERD.dc
221	544150.955	3694259.145	1.827	TOP	IHNCFRANCERD.dc
222	544149.289	3694253.168	0.714	TOE	IHNCFRANCERD.dc
223	544040.900	3694157.174	0.182	NG	IHNCFRANCERD.dc
224	544036.286	3694197.994	0.340	NG	IHNCFRANCERD.dc
225	543996.632	3694102.680	-0.268	NG	IHNCFRANCERD.dc
226	543944.827	3694115.815	-0.480	NG	IHNCFRANCERD.dc
227	543966.036	3694195.084	0.369	NG	IHNCFRANCERD.dc
228	543972.842	3694229.275	0.257	NG	IHNCFRANCERD.dc
229	543865.477	3694266.469	-0.296	NG	IHNCFRANCERD.dc
230	543842.281	3694194.995	-0.299	NG	IHNCFRANCERD.dc
231	543714.059	3694229.750	-1.107	NG	IHNCFRANCERD.dc
232	543714.769	3694272.912	-1.024	NG	IHNCFRANCERD.dc
233	543718.917	3694302.913	-1.098	NG	IHNCFRANCERD.dc
234	543579.424	3694344.347	-1.060	NG	IHNCFRANCERD.dc
235	543567.480	3694299.929	-0.998	NG	IHNCFRANCERD.dc
236	543555.441	3694252.791	-1.054	NG	IHNCFRANCERD.dc
237	543666.189	3694276.539	-1.113	NG	IHNCFRANCERD.dc
238	543656.267	3694249.260	-0.982	NG	IHNCFRANCERD.dc
239	543642.451	3694217.937	-1.118	NG	IHNCFRANCERD.dc
240	543467.104	3694367.126	-0.304	NG	IHNCFRANCERD.dc
241	543451.950	3694332.134	-0.309	NG	IHNCFRANCERD.dc
242	543440.391	3694292.411	-0.171	NG	IHNCFRANCERD.dc
243	544137.480	3694302.305	8.287	C\L LEVEE	IHNCFRANCERD.dc
244	544136.267	3694313.197	8.051	C\L LEVEE	IHNCFRANCERD.dc
245	544129.870	3694320.693	7.995	C\L LEVEE	IHNCFRANCERD.dc
246	544031.407	3694342.202	7.939	C\L LEVEE	IHNCFRANCERD.dc
247	543935.150	3694363.943	7.977	C\L LEVEE	IHNCFRANCERD.dc
248	543837.446	3694386.516	7.947	C\L LEVEE	IHNCFRANCERD.dc
249	543803.935	3694398.080	7.853	C\L LEVEE	IHNCFRANCERD.dc
250	543730.685	3694414.589	7.712	C\L LEVEE	IHNCFRANCERD.dc
251	543632.904	3694433.452	7.603	C\L LEVEE	IHNCFRANCERD.dc
252	543534.100	3694449.868	7.935	C\L LEVEE	IHNCFRANCERD.dc
253	543435.568	3694465.093	7.865	C\L LEVEE	IHNCFRANCERD.dc
254	543390.763	3694471.248	7.789	C\L LEVEE	IHNCFRANCERD.dc
255	543378.552	3694470.389	7.755	C\L LEVEE	IHNCFRANCERD.dc
256	543308.046	3694452.531	7.817	C\L LEVEE	IHNCFRANCERD.dc
257	543309.417	3694446.679	7.637	C\L LEVEE-END	IHNCFRANCERD.dc
258	543312.251	3694446.313	3.676	TOE-END FLOODWALL	IHNCFRANCERD.dc
259	543311.316	3694446.788	13.346	END CONC FLDWALL	IHNCFRANCERD.dc
IHNC3	543247.205	3694283.720	0.881	1\2IN REBAR	IHNCFRANCERD.dc
IHNC4	543325.352	3694176.111	1.003	1\2IN REBAR	IHNCFRANCERD.dc
260	543112.377	3694397.796	7.777	C\L LEVEE-END	IHNCFRANCERD.dc
261	543108.437	3694401.690	8.128	C\L LEVEE	IHNCFRANCERD.dc
262	543014.070	3694377.521	7.697	C\L LEVEE	IHNCFRANCERD.dc
263	542917.446	3694354.469	8.108	C\L LEVEE	IHNCFRANCERD.dc
264	542820.974	3694330.933	7.805	C\L LEVEE	IHNCFRANCERD.dc

265	542728.069	3694307.447	7.926	C\L LEVEE	IHNCFRANCERD.dc
266	542723.867	3694306.354	8.583	C\L LEVEE	IHNCFRANCERD.dc
267	542670.143	3694294.773	8.188	C\L LEVEE	IHNCFRANCERD.dc
268	542627.904	3694283.212	7.525	C\L LEVEE	IHNCFRANCERD.dc
269	542625.490	3694280.613	7.385	C\L LEVEE	IHNCFRANCERD.dc
270	542626.379	3694275.726	7.276	C\L LEVEE-END	IHNCFRANCERD.dc
271	542671.931	3694287.785	4.937	TOE-END FLODWALL	IHNCFRANCERD.dc
272	542671.445	3694287.252	12.485	END CONC FLDWALL	IHNCFRANCERD.dc
273	542629.440	3694277.758	12.667	TOP CONC FLDWALL	IHNCFRANCERD.dc
274	542627.804	3694277.238	12.527	TOP CONC FLDWALL	IHNCFRANCERD.dc
275	542628.172	3694275.718	12.546	TOP CONC FLDWALL	IHNCFRANCERD.dc
276	542597.022	3694268.212	12.440	TOP CONC FLDWALL	IHNCFRANCERD.dc
277	542596.622	3694267.864	12.529	TOP CONC FLDWALL	IHNCFRANCERD.dc
278	542591.601	3694266.716	12.571	TOP CONC FLDWALL	IHNCFRANCERD.dc
279	542587.918	3694281.355	12.533	TOP CONC FLDWALL	IHNCFRANCERD.dc
280	542588.090	3694281.725	13.283	TOP CONC FLDWALL	IHNCFRANCERD.dc
281	542586.863	3694283.210	13.313	END CONC FLDWALL	IHNCFRANCERD.dc
282	542587.784	3694284.085	3.085	TOE FLDGATE	IHNCFRANCERD.dc
283	542583.794	3694299.504	3.070	TOE FLDGATE	IHNCFRANCERD.dc
284	542583.626	3694300.045	13.281	END CONC FLDWALL	IHNCFRANCERD.dc
285	542582.820	3694301.670	13.309	TOP CONC FLDWALL	IHNCFRANCERD.dc
286	542582.719	3694301.902	12.575	TOP CONC FLDWALL	IHNCFRANCERD.dc
287	542581.443	3694307.564	12.511	TOP CONC FLDWALL	IHNCFRANCERD.dc
288	542581.484	3694308.094	13.375	TOP CONC FLDWALL	IHNCFRANCERD.dc
289	542578.036	3694325.160	13.234	TOP CONC FLDWALL	IHNCFRANCERD.dc
290	542576.086	3694334.317	13.097	END CONC FLDWALL	IHNCFRANCERD.dc
291	542576.010	3694334.538	10.506	TOE-FLDWALL	IHNCFRANCERD.dc
292	542827.667	3694414.766	2.348	C\L FRANCE ROAD	IHNCFRANCERD.dc
293	542801.476	3694407.999	2.406	C\L FRANCE ROAD	IHNCFRANCERD.dc
294	542775.186	3694401.462	2.696	C\L FRANCE ROAD	IHNCFRANCERD.dc
295	542749.295	3694394.999	3.188	C\L FRANCE ROAD	IHNCFRANCERD.dc
296	542723.029	3694388.437	3.836	C\L FRANCE ROAD	IHNCFRANCERD.dc
297	542697.355	3694381.986	4.896	C\L FRANCE ROAD	IHNCFRANCERD.dc
298	542671.538	3694375.549	6.323	C\L FRANCE ROAD	IHNCFRANCERD.dc
299	542645.252	3694369.128	7.791	C\L FRANCE ROAD	IHNCFRANCERD.dc
300	542619.635	3694362.725	9.166	C\L FRANCE ROAD	IHNCFRANCERD.dc
301	542594.623	3694356.560	10.220	C\L FRANCE ROAD	IHNCFRANCERD.dc
302	542568.108	3694349.661	10.618	C\L FRANCE ROAD	IHNCFRANCERD.dc
303	542555.346	3694346.333	2.595	C\L FRANCE ROAD	IHNCFRANCERD.dc
304	542541.086	3694343.204	2.258	C\L FRANCE ROAD	IHNCFRANCERD.dc
305	542538.756	3694342.281	10.556	C\L FRANCE ROAD	IHNCFRANCERD.dc
306	542528.225	3694339.995	9.700	C\L FRANCE ROAD	IHNCFRANCERD.dc
307	542498.231	3694332.346	7.804	C\L FRANCE ROAD	IHNCFRANCERD.dc
308	542458.195	3694321.878	5.427	C\L FRANCE ROAD	IHNCFRANCERD.dc
309	542454.059	3694321.088	2.101	C\L FRANCE ROAD	IHNCFRANCERD.dc
310	542439.300	3694318.151	0.940	C\L FRANCE ROAD	IHNCFRANCERD.dc
311	542581.620	3694334.539	10.430	C\L LEVEE	IHNCFRANCERD.dc

312	542557.020	3694433.202	10.935	C\L LEVEE	IHNCFRANCERD.dc
313	542533.777	3694528.966	11.011	C\L LEVEE	IHNCFRANCERD.dc
314	542507.208	3694625.977	10.798	C\L LEVEE	IHNCFRANCERD.dc
315	542482.015	3694723.234	10.957	C\L LEVEE	IHNCFRANCERD.dc
316	542458.929	3694818.218	10.738	C\L LEVEE	IHNCFRANCERD.dc
317	542434.640	3694916.012	10.468	C\L LEVEE	IHNCFRANCERD.dc
318	542426.710	3694952.370	9.954	C\L LEVEE	IHNCFRANCERD.dc
319	542415.515	3694983.293	10.029	C\L LEVEE	IHNCFRANCERD.dc
320	542412.832	3695000.088	10.232	C\L LEVEE	IHNCFRANCERD.dc
321	542412.544	3695003.746	9.886	TOE-FLDWALL	IHNCFRANCERD.dc
322	542412.539	3695004.060	13.083	END CONC FLDWALL	IHNCFRANCERD.dc
323	542410.940	3695010.625	13.872	END CONC FLDWALL	IHNCFRANCERD.dc
324	542411.318	3695009.057	13.892	TOP CONC FLDWALL	IHNCFRANCERD.dc
325	542411.391	3695008.720	13.126	TOP CONC FLDWALL	IHNCFRANCERD.dc
326	542410.706	3695011.147	6.282	TOE FLDGATE	IHNCFRANCERD.dc
327	542404.421	3695036.530	6.260	TOE FLDGATE	IHNCFRANCERD.dc
328	542404.226	3695037.095	13.837	END CONC FLDWALL	IHNCFRANCERD.dc
329	542402.725	3695043.459	13.067	END CONC FLDWALL	IHNCFRANCERD.dc
330	542403.847	3695038.791	13.824	TOP CONC FLDWALL	IHNCFRANCERD.dc
331	542403.806	3695039.045	13.095	TOP CONC FLDWALL	IHNCFRANCERD.dc
332	542402.413	3695043.483	9.151	TOE FLDWALL	IHNCFRANCERD.dc
333	542400.947	3695044.865	9.827	C\L LEVEE	IHNCFRANCERD.dc
334	542397.927	3695059.193	10.298	C\L LEVEE	IHNCFRANCERD.dc
335	542375.374	3695155.033	10.805	C\L LEVEE	IHNCFRANCERD.dc
336	542351.636	3695248.935	10.914	C\L LEVEE	IHNCFRANCERD.dc
337	542339.059	3695301.115	11.370	C\L LEVEE	IHNCFRANCERD.dc
338	542330.297	3695342.097	10.481	C\L LEVEE	IHNCFRANCERD.dc
339	542316.913	3695415.259	10.042	C\L LEVEE	IHNCFRANCERD.dc
340	542309.552	3695439.217	9.693	C\L LEVEE	IHNCFRANCERD.dc
341	542301.526	3695470.391	10.480	C\L LEVEE	IHNCFRANCERD.dc
342	542298.021	3695484.965	10.790	C\L LEVEE-END PROFIL	IHNCFRANCERD.dc
343	542194.931	3695876.370	6.795	TOE FLDWALL	IHNCFRANCERD.dc
344	542194.255	3695876.765	13.019	TOP CONC FLDWALL	IHNCFRANCERD.dc
LA1054-WM	549412.375	3694521.338	11.920	TOP BLDG CINDER	IHNCFRANCERD.dc
346	544175.862	3694342.973	1.720	TOE	IHNCFRANCERD.dc
347	544176.493	3694348.468	2.903	TOP	IHNCFRANCERD.dc
348	544176.784	3694351.631	3.653	TOP OF RAIL	IHNCFRANCERD.dc
349	544177.527	3694356.306	3.686	TOP OF RAIL	IHNCFRANCERD.dc
350	544178.150	3694358.663	2.990	TOP	IHNCFRANCERD.dc
351	544179.761	3694365.803	0.631	TOE	IHNCFRANCERD.dc
352	544180.698	3694368.443	0.513	TOP DITCH	IHNCFRANCERD.dc
353	544181.366	3694370.108	0.042	WE	IHNCFRANCERD.dc
354	544183.039	3694386.433	-0.040	WE	IHNCFRANCERD.dc
355	544195.721	3694377.713	-2.441	C\L DITCH	IHNCFRANCERD.dc
356	544184.774	3694393.250	2.421	TOP DITCH	IHNCFRANCERD.dc
357	544185.852	3694402.699	3.587	PL	IHNCFRANCERD.dc
358	544188.142	3694411.215	3.420	EDGE ASPHALT ROAD	IHNCFRANCERD.dc

359	544189.927	3694423.165	3.292	C\L ROAD	IHNCFRANCERD.dc
360	544192.743	3694435.671	3.152	EDGE ASPHALT ROAD	IHNCFRANCERD.dc
361	544194.752	3694445.607	2.735	TOP DITCH	IHNCFRANCERD.dc
362	543258.666	3694433.593	12.984	END CONC FLDWALL	IHNCFRANCERD.dc
363	543256.317	3694431.963	3.513	TOE FLDGATE	IHNCFRANCERD.dc
364	543218.656	3694422.669	3.536	TOE FLDGATE	IHNCFRANCERD.dc
365	543202.849	3694418.752	3.543	TOE FLDGATE	IHNCFRANCERD.dc
366	543165.269	3694409.359	3.418	TOE FLDGATE	IHNCFRANCERD.dc
367	543216.401	3694422.352	12.894	END CONC FLDWALL	IHNCFRANCERD.dc
368	543204.960	3694419.520	12.943	END CONC FLDWALL	IHNCFRANCERD.dc
369	543162.660	3694409.005	12.887	END CONC FLDWALL	IHNCFRANCERD.dc
370	543109.535	3694396.850	12.924	END CONC FLDWALL	IHNCFRANCERD.dc
371	543109.191	3694396.162	4.778	TOE FLDWALL	IHNCFRANCERD.dc

APPENDIX M

Ground Truthing/Calibration of High-Altitude JALBTCX 2005 LIDAR: (TG 1 Support)

RTK GPS Log

Project Name: IPET TASK GROUP 6
Project No: GROUND TRUTH PATCH AREA-PATCH 1
Project Location: LAKE PONT.-NEW ORLEANS

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	JP03		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A1	P1A16	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111-HORZ
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A17	P1A31	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A32	P1A46	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3111
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A47	P1A56	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6111
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A57	P1A60	0.27FT.	TRIMBLE MICRO-CENTERED L1/L2	4111-FLDWALL-HORZ
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A61	P1A78	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3121
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A79	P1A88	2.063M	TRIMBLE MICRO-CENTERED L1/L2	A111
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P1A89	P1A102	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3111-ASPHALT
01/06/06	PATCH 1	JP 04	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	JP03		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK

Ground Check-Point Descriptive Codes

Surface Type		Sky Visibility		Surface Slope		Confidence	
1	Dirt	1	Open	1	Flat	1	Good
2	Sand	2	Part open	2	Slight Slope	2	Fair
3	Asphalt	3	Covered	3	Slope	3	Bad
4	Concrete						
5	Tall Grass						
6	Mowed Grass						
7	Trees and Brush						
8	Weeds and short grass						
9	Thick brush						
A	Thich cut grass						
B	Cultivated field - unplowed						
C	Limestone						
D	Trees and grass						
E	Gravel						
F	Brush and grass						

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the geospatial company

Project : Patch 1
Coordinate System: US State Plane 1983, Zone: Louisiana South 1702
Project Datum: NAD 1983 (Conus)
Geoid Model: GEOID03 (Conus)
Coordinate Units: US survey feet
Distance Units: US survey feet
Height Units: US survey feet

					Meters	Feet	
Name	Northing	Easting	Latitude	Longitude	Elevation	Elevation	Feature Code
JP03	558518.691	3633625.158	30°01'51.96103"N	90°13'06.29152"W	-1.640	-5.380	CHK
JP04	560557.950	3624734.086	30°02'12.99285"N	90°14'47.21895"W	-1.268	-4.160	RTK BASE
P1A1	560541.093	3624777.844	30°02'12.82188"N	90°14'46.72293"W	-1.363	-4.473	4111-HORZ
P1A10	560528.684	3625033.417	30°02'12.67503"N	90°14'43.81663"W	-1.568	-5.144	4111-HORZ
P1A100	560862.662	3624947.657	30°02'15.98908"N	90°14'44.75625"W	-1.207	-3.961	3111-ASPHALT
P1A101	560849.978	3624935.044	30°02'15.86471"N	90°14'44.90112"W	-1.211	-3.972	3111-ASPHALT
P1A102	560839.852	3624924.971	30°02'15.76542"N	90°14'45.01681"W	-1.207	-3.960	3111-ASPHALT
P1A11	560529.417	3625025.238	30°02'12.68306"N	90°14'43.90960"W	-1.474	-4.836	4111-HORZ
P1A12	560531.505	3624992.786	30°02'12.70677"N	90°14'44.27859"W	-1.565	-5.134	4111-HORZ
P1A13	560534.469	3624945.461	30°02'12.74056"N	90°14'44.81668"W	-1.445	-4.742	4111-HORZ
P1A14	560538.605	3624878.563	30°02'12.78779"N	90°14'45.57733"W	-1.389	-4.558	4111-HORZ
P1A15	560541.880	3624826.644	30°02'12.82508"N	90°14'46.16765"W	-1.358	-4.456	4111-HORZ
P1A16	560544.924	3624777.999	30°02'12.85978"N	90°14'46.72075"W	-1.299	-4.262	4111-HORZ
P1A17	560439.354	3625204.387	30°02'11.77471"N	90°14'41.88117"W	-1.725	-5.658	4111
P1A18	560438.295	3625221.749	30°02'11.76259"N	90°14'41.68376"W	-1.727	-5.666	4111
P1A19	560437.143	3625237.967	30°02'11.74966"N	90°14'41.49937"W	-1.703	-5.587	4111
P1A2	560540.878	3624781.838	30°02'12.81938"N	90°14'46.67752"W	-1.294	-4.245	4111-HORZ
P1A20	560436.113	3625253.778	30°02'11.73798"N	90°14'41.31960"W	-1.693	-5.556	4111
P1A21	560435.085	3625271.82	30°02'11.72611"N	90°14'41.11445"W	-1.720	-5.644	4111
P1A22	560433.986	3625290.005	30°02'11.71351"N	90°14'40.90768"W	-1.755	-5.758	4111
P1A23	560432.873	3625308.756	30°02'11.70074"N	90°14'40.69447"W	-1.755	-5.759	4111
P1A24	560431.450	3625327.404	30°02'11.68490"N	90°14'40.48247"W	-1.739	-5.707	4111
P1A25	560430.413	3625345.238	30°02'11.67295"N	90°14'40.27968"W	-1.695	-5.562	4111
P1A26	560429.065	3625362.812	30°02'11.65795"N	90°14'40.07989"W	-1.698	-5.572	4111
P1A27	560428.112	3625379.915	30°02'11.64691"N	90°14'39.88541"W	-1.657	-5.436	4111
P1A28	560426.647	3625400.501	30°02'11.63048"N	90°14'39.65136"W	-1.599	-5.245	4111
P1A29	560425.272	3625421.052	30°02'11.61493"N	90°14'39.41771"W	-1.696	-5.563	4111
P1A3	560537.993	3624826.737	30°02'12.78660"N	90°14'46.16702"W	-1.411	-4.628	4111-HORZ
P1A30	560424.143	3625439.07	30°02'11.60206"N	90°14'39.21285"W	-1.722	-5.651	4111
P1A31	560423.001	3625455.401	30°02'11.58921"N	90°14'39.02717"W	-1.716	-5.630	4111
P1A32	560533.701	3625829.705	30°02'12.64978"N	90°14'34.75676"W	-1.701	-5.581	3111
P1A33	560533.286	3625841.678	30°02'12.64454"N	90°14'34.62058"W	-1.688	-5.537	3111
P1A34	560532.711	3625852.238	30°02'12.63786"N	90°14'34.50051"W	-1.655	-5.431	3111
P1A35	560531.590	3625864.871	30°02'12.62557"N	90°14'34.35691"W	-1.643	-5.390	3111
P1A36	560530.433	3625876.448	30°02'12.61303"N	90°14'34.22532"W	-1.627	-5.339	3111
P1A37	560529.179	3625888.48	30°02'12.59948"N	90°14'34.08856"W	-1.658	-5.441	3111
P1A38	560527.386	3625900.606	30°02'12.58059"N	90°14'33.95080"W	-1.616	-5.302	3111
P1A39	560525.348	3625830.07	30°02'12.56706"N	90°14'34.75351"W	-1.675	-5.495	3111
P1A4	560534.461	3624882.467	30°02'12.74640"N	90°14'45.53336"W	-1.386	-4.546	4111-HORZ
P1A40	560522.379	3625841.45	30°02'12.53659"N	90°14'34.62436"W	-1.667	-5.468	3111
P1A41	560520.173	3625852.579	30°02'12.51371"N	90°14'34.49798"W	-1.663	-5.455	3111

P1A42	560517.820	3625864.145	30°02'12.48933"N	90°14'34.36665"W	-1.645	-5.397	3111
P1A43	560516.036	3625876.361	30°02'12.47052"N	90°14'34.22787"W	-1.628	-5.340	3111
P1A44	560517.081	3625888.2	30°02'12.47975"N	90°14'34.09306"W	-1.629	-5.345	3111
P1A45	560516.726	3625899.508	30°02'12.47518"N	90°14'33.96445"W	-1.609	-5.280	3111
P1A46	560515.700	3625910.92	30°02'12.46394"N	90°14'33.83472"W	-1.580	-5.185	3111
P1A47	560782.239	3624817.763	30°02'15.20519"N	90°14'46.24275"W	-1.316	-4.316	6111
P1A48	560795.654	3624832.84	30°02'15.33656"N	90°14'46.06977"W	-1.332	-4.370	6111
P1A49	560806.156	3624845.262	30°02'15.43936"N	90°14'45.92730"W	-1.308	-4.291	6111
P1A5	560529.672	3624961.362	30°02'12.69158"N	90°14'44.63629"W	-1.431	-4.694	4111-HORZ
P1A50	560824.998	3624865.46	30°02'15.62397"N	90°14'45.69548"W	-1.332	-4.370	6111
P1A51	560837.946	3624879.657	30°02'15.75081"N	90°14'45.53257"W	-1.401	-4.596	6111
P1A52	560849.639	3624892.408	30°02'15.86536"N	90°14'45.38624"W	-1.384	-4.542	6111
P1A53	560871.741	3624914.926	30°02'16.08203"N	90°14'45.12765"W	-1.350	-4.429	6111
P1A54	560881.458	3624924.643	30°02'16.17730"N	90°14'45.01605"W	-1.412	-4.633	6111
P1A55	560890.872	3624934.297	30°02'16.26958"N	90°14'44.90521"W	-1.414	-4.639	6111
P1A56	560906.347	3624950.127	30°02'16.42128"N	90°14'44.72344"W	-1.360	-4.463	6111
P1A57	561205.915	3625256.639	30°02'19.35783"N	90°14'41.20385"W	6.577	21.577	4111-FLDWALL-HORZ
P1A58	561202.255	3625303.803	30°02'19.31717"N	90°14'40.66765"W	6.596	21.642	4111-FLDWALL-HORZ
P1A59	561318.722	3625439.2	30°02'20.45732"N	90°14'39.11463"W	5.669	18.598	4111-FLDWALL-HORZ
P1A6	560527.348	3624997.047	30°02'12.66523"N	90°14'44.23055"W	-1.583	-5.194	4111-HORZ
P1A60	561376.832	3625468.315	30°02'21.02980"N	90°14'38.77709"W	5.654	18.551	4111-FLDWALL-HORZ
P1A61	561093.334	3625179.457	30°02'18.25068"N	90°14'42.09413"W	-1.362	-4.468	3121
P1A62	561099.157	3625185.717	30°02'18.30773"N	90°14'42.02228"W	-1.290	-4.233	3121
P1A63	561104.722	3625191.758	30°02'18.36224"N	90°14'41.95294"W	-1.127	-3.698	3121
P1A64	561110.341	3625198.1	30°02'18.41727"N	90°14'41.88018"W	-0.917	-3.010	3121
P1A65	561116.428	3625204.328	30°02'18.47694"N	90°14'41.80867"W	-0.632	-2.075	3121
P1A66	561122.846	3625210.125	30°02'18.53992"N	90°14'41.74203"W	-0.365	-1.199	3121
P1A67	561130.710	3625203.458	30°02'18.61839"N	90°14'41.81703"W	-0.328	-1.076	3121
P1A68	561126.102	3625198.256	30°02'18.57326"N	90°14'41.87670"W	-0.565	-1.854	3121
P1A69	561121.349	3625192.777	30°02'18.52673"N	90°14'41.93956"W	-0.824	-2.704	3121
P1A7	560526.858	3625004.992	30°02'12.65963"N	90°14'44.14022"W	-1.665	-5.461	4111-HORZ
P1A70	561116.410	3625186.936	30°02'18.47839"N	90°14'42.00655"W	-1.056	-3.463	3121
P1A71	561111.288	3625181.371	30°02'18.42822"N	90°14'42.07041"W	-1.234	-4.047	3121
P1A72	561105.011	3625175.37	30°02'18.36665"N	90°14'42.13937"W	-1.332	-4.369	3121
P1A73	561114.603	3625167.629	30°02'18.46233"N	90°14'42.22639"W	-1.311	-4.300	3121
P1A74	561120.412	3625173.123	30°02'18.51930"N	90°14'42.16327"W	-1.230	-4.034	3121
P1A75	561126.410	3625178.474	30°02'18.57818"N	90°14'42.10174"W	-1.067	-3.502	3121
P1A76	561132.827	3625183.624	30°02'18.64121"N	90°14'42.04245"W	-0.803	-2.635	3121
P1A77	561138.643	3625188.69	30°02'18.69831"N	90°14'41.98418"W	-0.507	-1.662	3121
P1A78	561144.479	3625191.662	30°02'18.75580"N	90°14'41.94974"W	-0.269	-0.884	3121
P1A79	561189.938	3625517.172	30°02'19.17518"N	90°14'38.24145"W	-1.506	-4.940	A111
P1A8	560525.531	3625025.24	30°02'12.64459"N	90°14'43.91000"W	-1.489	-4.885	4111-HORZ
P1A80	561201.351	3625524.28	30°02'19.28748"N	90°14'38.15935"W	-1.462	-4.796	A111
P1A81	561211.753	3625532.555	30°02'19.38966"N	90°14'38.06408"W	-1.489	-4.884	A111
P1A82	561220.345	3625538.785	30°02'19.47413"N	90°14'37.99227"W	-1.469	-4.821	A111
P1A83	561228.502	3625545.074	30°02'19.55428"N	90°14'37.91983"W	-1.468	-4.815	A111
P1A84	561219.340	3625559.927	30°02'19.46219"N	90°14'37.75184"W	-1.488	-4.881	A111
P1A85	561209.235	3625553.774	30°02'19.36275"N	90°14'37.82293"W	-1.498	-4.916	A111
P1A86	561201.460	3625547.133	30°02'19.28640"N	90°14'37.89933"W	-1.488	-4.883	A111
P1A87	561193.566	3625540.606	30°02'19.20888"N	90°14'37.97444"W	-1.511	-4.956	A111
P1A88	561182.945	3625531.731	30°02'19.10457"N	90°14'38.07657"W	-1.509	-4.951	A111
P1A89	560871.848	3624982.192	30°02'16.07676"N	90°14'44.36235"W	-1.246	-4.089	3111-ASPHALT
P1A9	560525.088	3625032.06	30°02'12.63957"N	90°14'43.83245"W	-1.587	-5.207	4111-HORZ
P1A90	560858.483	3624968.906	30°02'15.94572"N	90°14'44.51496"W	-1.217	-3.994	3111-ASPHALT
P1A91	560845.331	3624955.768	30°02'15.81676"N	90°14'44.66584"W	-1.200	-3.936	3111-ASPHALT
P1A92	560832.181	3624942.615	30°02'15.68783"N	90°14'44.81691"W	-1.194	-3.918	3111-ASPHALT
P1A93	560838.441	3624935.433	30°02'15.75047"N	90°14'44.89795"W	-1.141	-3.742	3111-ASPHALT
P1A94	560850.783	3624947.467	30°02'15.87151"N	90°14'44.75970"W	-1.147	-3.764	3111-ASPHALT
P1A95	560862.680	3624959.451	30°02'15.98815"N	90°14'44.62207"W	-1.166	-3.825	3111-ASPHALT

P1A96	560875.124	3624971.968	30°02'16.11015"N	90°14'44.47832"W	-1.177	-3.862	3111-ASPHALT
P1A97	560879.426	3624976.084	30°02'16.15235"N	90°14'44.43102"W	-1.191	-3.908	3111-ASPHALT
P1A98	560885.220	3624970.333	30°02'16.21025"N	90°14'44.49583"W	-1.254	-4.113	3111-ASPHALT
P1A99	560874.992	3624959.752	30°02'16.11000"N	90°14'44.61732"W	-1.232	-4.042	3111-ASPHALT

RTK GPS Log

Project Name: IPET TASK GROUP 6
Project No: GROUND TRUTH PATCH AREA-PATCH 2
Project Location: LAKE PONT.-NEW ORLEANS

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	LOND		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P2A1	P2A10	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P2A11	P2A25	2.063M	TRIMBLE MICRO-CENTERED L1/L2	A111
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P2A26	P2A40	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3121
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P2A41	P2A44	0.20FT.	TRIMBLE MICRO-CENTERED L1/L2	BLDG ROOF CORNERS-HORZ
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P2A45	P2A57	2.063M	TRIMBLE MICRO-CENTERED L1/L2	A131
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P2A58	P2A73	2.063M	TRIMBLE MICRO-CENTERED L1/L2	A131-SLOPE
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P2A74	P2A93	2.063M	TRIMBLE MICRO-CENTERED L1/L2	CONC FLDWALL-HORZ
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P2A94	P2A108	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3111-ASPHALT
01/06/06	PATCH 2	ALCO	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	LOND		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK

Ground Check-Point Descriptive Codes

Surface Type		Sky Visibility		Surface Slope		Confidence	
1	Dirt	1	Open	1	Flat	1	Good
2	Sand	2	Part open	2	Slight Slope	2	Fair
3	Asphalt	3	Covered	3	Slope	3	Bad
4	Concrete						
5	Tall Grass						
6	Mowed Grass						
7	Trees and Brush						
8	Weeds and short grass						
9	Thick brush						
A	Thich cut grass						
B	Cultivated field - unplowed						
C	Limestone						
D	Trees and grass						
E	Gravel						
F	Brush and grass						

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the geospatial company

Project : Patch 2
Coordinate System: US State Plane 1983, Zone: Louisiana South 1702
Project Datum: NAD 1983 (Conus)
Geoid Model: GEOID03 (Conus)
Coordinate Units: US survey feet
Distance Units: US survey feet
Height Units: US survey feet

					Meters	Feet	
Name	Northing	Easting	Latitude	Longitude	Elevation	Elevation	Feature Code
ALCO	557299.702	3667048.434	30°01'36.52294"N	90°06'46.21053"W	1.870	6.135	RTK BASE
LOND	555491.489	3680327.103	30°01'17.19989"N	90°04'15.38392"W	2.676	8.778	CHK
P2A1	557263.525	3667051.998	30°01'36.16446"N	90°06'46.17437"W	1.661	5.448	4111
P2A10	557264.172	3666978.177	30°01'36.17864"N	90°06'47.01405"W	1.696	5.564	4111
P2A100	557279.415	3667909.983	30°01'36.23118"N	90°06'36.41229"W	0.771	2.531	3111-ASPHALT
P2A101	557274.362	3667893.165	30°01'36.18294"N	90°06'36.60422"W	0.779	2.556	3111-ASPHALT
P2A102	557268.787	3667875.711	30°01'36.12960"N	90°06'36.80345"W	0.791	2.596	3111-ASPHALT
P2A103	557263.199	3667858.476	30°01'36.07611"N	90°06'37.00019"W	0.792	2.598	3111-ASPHALT
P2A104	557284.106	3667852.161	30°01'36.28372"N	90°06'37.06948"W	0.716	2.350	3111-ASPHALT
P2A105	557289.408	3667868.913	30°01'36.33444"N	90°06'36.87827"W	0.683	2.242	3111-ASPHALT
P2A106	557294.578	3667886.323	30°01'36.38378"N	90°06'36.67960"W	0.700	2.297	3111-ASPHALT
P2A107	557299.924	3667903.459	30°01'36.43488"N	90°06'36.48401"W	0.706	2.315	3111-ASPHALT
P2A108	557305.631	3667920.702	30°01'36.48955"N	90°06'36.28717"W	0.710	2.329	3111-ASPHALT
P2A11	557264.530	3667174.550	30°01'36.16148"N	90°06'44.78013"W	2.088	6.852	A111
P2A12	557269.894	3667187.289	30°01'36.21324"N	90°06'44.63457"W	2.056	6.745	A111
P2A13	557276.327	3667201.158	30°01'36.27545"N	90°06'44.47602"W	2.074	6.803	A111
P2A14	557281.041	3667214.899	30°01'36.32066"N	90°06'44.31914"W	2.049	6.723	A111
P2A15	557287.142	3667228.436	30°01'36.37963"N	90°06'44.16441"W	2.055	6.742	A111
P2A16	557291.087	3667240.329	30°01'36.41742"N	90°06'44.02863"W	2.041	6.695	A111
P2A17	557294.563	3667253.376	30°01'36.45046"N	90°06'43.87979"W	2.082	6.831	A111
P2A18	557300.022	3667266.924	30°01'36.50306"N	90°06'43.72502"W	2.111	6.925	A111
P2A19	557304.820	3667279.663	30°01'36.54921"N	90°06'43.57952"W	2.122	6.961	A111
P2A2	557266.389	3667043.384	30°01'36.19371"N	90°06'46.27200"W	1.681	5.514	4111
P2A20	557309.681	3667292.692	30°01'36.59595"N	90°06'43.43072"W	2.174	7.134	A111
P2A21	557314.120	3667306.558	30°01'36.63843"N	90°06'43.27245"W	2.200	7.219	A111
P2A22	557316.448	3667319.434	30°01'36.66011"N	90°06'43.12568"W	2.206	7.239	A111
P2A23	557320.111	3667333.405	30°01'36.69491"N	90°06'42.96631"W	2.215	7.268	A111
P2A24	557322.456	3667347.107	30°01'36.71667"N	90°06'42.81016"W	2.220	7.284	A111
P2A25	557326.088	3667360.465	30°01'36.75121"N	90°06'42.65776"W	2.214	7.263	A111
P2A26	557095.871	3667217.430	30°01'34.48745"N	90°06'44.31279"W	2.177	7.144	3121
P2A27	557087.076	3667208.004	30°01'34.40139"N	90°06'44.42108"W	2.118	6.949	3121
P2A28	557074.641	3667194.632	30°01'34.27970"N	90°06'44.57470"W	2.037	6.682	3121
P2A29	557062.703	3667181.902	30°01'34.16288"N	90°06'44.72096"W	2.006	6.582	3121
P2A3	557268.872	3667035.637	30°01'36.21911"N	90°06'46.35983"W	1.692	5.552	4111
P2A30	557050.772	3667169.474	30°01'34.04609"N	90°06'44.86378"W	1.968	6.457	3121
P2A31	557038.247	3667157.156	30°01'33.92340"N	90°06'45.00542"W	1.936	6.351	3121
P2A32	557026.032	3667145.738	30°01'33.80370"N	90°06'45.13679"W	1.908	6.259	3121
P2A33	557013.908	3667134.502	30°01'33.68487"N	90°06'45.26608"W	1.888	6.194	3121
P2A34	557002.248	3667124.235	30°01'33.57053"N	90°06'45.38429"W	1.860	6.102	3121
P2A35	556989.635	3667113.404	30°01'33.44682"N	90°06'45.50902"W	1.839	6.032	3121
P2A36	556975.685	3667102.396	30°01'33.30989"N	90°06'45.63593"W	1.834	6.018	3121
P2A37	556962.082	3667091.561	30°01'33.17638"N	90°06'45.76084"W	1.754	5.754	3121
P2A38	556948.447	3667081.564	30°01'33.04247"N	90°06'45.87622"W	1.705	5.595	3121
P2A39	556931.720	3667076.310	30°01'32.87745"N	90°06'45.93801"W	1.663	5.457	3121

P2A4	557270.908	3667023.348	30°01'36.24056"N	90°06'46.49939"W	1.756	5.761	4111
P2A40	556913.453	3667065.485	30°01'32.69777"N	90°06'46.06336"W	1.644	5.395	3121
P2A41	557035.173	3667298.847	30°01'33.87802"N	90°06'43.39398"W	5.808	19.055	BLDG ROOF CORNERS-HO
P2A42	557022.229	3667309.036	30°01'33.74883"N	90°06'43.27964"W	5.856	19.211	BLDG ROOF CORNERS-HO
P2A43	557034.470	3667324.646	30°01'33.86835"N	90°06'43.10058"W	5.827	19.116	BLDG ROOF CORNERS-HO
P2A44	557047.379	3667314.519	30°01'33.99720"N	90°06'43.21422"W	5.792	19.003	BLDG ROOF CORNERS-HO
P2A45	557004.481	3667298.008	30°01'33.57430"N	90°06'43.40725"W	2.398	7.868	A131
P2A46	556990.544	3667304.664	30°01'33.43564"N	90°06'43.33322"W	2.740	8.991	A131
P2A47	556979.903	3667309.738	30°01'33.32977"N	90°06'43.27679"W	3.871	12.700	A131
P2A48	556967.315	3667314.063	30°01'33.20472"N	90°06'43.22911"W	5.213	17.103	A131
P2A49	556958.950	3667316.944	30°01'33.12161"N	90°06'43.19736"W	5.927	19.447	A131
P2A5	557271.112	3667014.663	30°01'36.24349"N	90°06'46.59816"W	1.762	5.781	4111
P2A50	556950.128	3667321.098	30°01'33.03385"N	90°06'43.15117"W	5.849	19.188	A131
P2A51	556939.800	3667325.462	30°01'32.93115"N	90°06'43.10279"W	4.772	15.656	A131
P2A52	556927.916	3667330.513	30°01'32.81298"N	90°06'43.04677"W	3.464	11.364	A131
P2A53	556914.482	3667336.021	30°01'32.67942"N	90°06'42.98574"W	2.017	6.617	A131
P2A54	556904.596	3667339.809	30°01'32.58116"N	90°06'42.94385"W	1.659	5.442	A131
P2A55	556898.378	3667342.479	30°01'32.51933"N	90°06'42.91423"W	1.076	3.531	A131
P2A56	556891.968	3667346.519	30°01'32.45546"N	90°06'42.86905"W	0.495	1.625	A131
P2A57	556879.331	3667352.735	30°01'32.32970"N	90°06'42.79987"W	0.375	1.230	A131
P2A58	556627.875	3667103.457	30°01'29.86691"N	90°06'45.66602"W	0.479	1.573	A131-SLOPE
P2A59	556629.835	3667093.931	30°01'29.88731"N	90°06'45.77414"W	0.517	1.696	A131-SLOPE
P2A6	557270.881	3667007.521	30°01'36.24196"N	90°06'46.67943"W	1.770	5.806	4111
P2A60	556632.181	3667082.541	30°01'29.91174"N	90°06'45.90342"W	1.260	4.133	A131-SLOPE
P2A61	556633.138	3667076.848	30°01'29.92181"N	90°06'45.96807"W	1.612	5.288	A131-SLOPE
P2A62	556633.944	3667068.399	30°01'29.93068"N	90°06'46.06409"W	1.774	5.821	A131-SLOPE
P2A63	556634.181	3667064.481	30°01'29.93344"N	90°06'46.10863"W	1.956	6.418	A131-SLOPE
P2A64	556635.456	3667053.446	30°01'29.94723"N	90°06'46.23400"W	3.038	9.968	A131-SLOPE
P2A65	556636.897	3667042.987	30°01'29.96259"N	90°06'46.35280"W	4.138	13.575	A131-SLOPE
P2A66	556639.333	3667032.479	30°01'29.98782"N	90°06'46.47204"W	5.117	16.787	A131-SLOPE
P2A67	556640.265	3667023.714	30°01'29.99796"N	90°06'46.57163"W	5.686	18.655	A131-SLOPE
P2A68	556641.575	3667015.187	30°01'30.01183"N	90°06'46.66846"W	5.642	18.512	A131-SLOPE
P2A69	556642.500	3667007.378	30°01'30.02181"N	90°06'46.75719"W	5.016	16.456	A131-SLOPE
P2A7	557269.756	3667000.119	30°01'36.23160"N	90°06'46.76377"W	1.762	5.782	4111
P2A70	556644.648	3666993.178	30°01'30.04457"N	90°06'46.91845"W	3.654	11.989	A131-SLOPE
P2A71	556646.975	3666981.563	30°01'30.06883"N	90°06'47.05030"W	2.536	8.321	A131-SLOPE
P2A72	556648.060	3666975.282	30°01'30.08023"N	90°06'47.12163"W	2.003	6.573	A131-SLOPE
P2A73	556650.182	3666962.102	30°01'30.10262"N	90°06'47.27130"W	1.749	5.739	A131-SLOPE
P2A74	556510.612	3666996.836	30°01'28.71740"N	90°06'46.89309"W	5.427	17.804	CONC FLOODWALL-HORZ
P2A75	556510.859	3666994.781	30°01'28.72006"N	90°06'46.91643"W	5.415	17.765	CONC FLOODWALL-HORZ
P2A76	556468.307	3666992.125	30°01'28.29913"N	90°06'46.95180"W	5.428	17.807	CONC FLOODWALL-HORZ
P2A77	556460.843	3666991.379	30°01'28.22533"N	90°06'46.96119"W	5.430	17.814	CONC FLOODWALL-HORZ
P2A78	556459.940	3666989.419	30°01'28.21659"N	90°06'46.98359"W	5.423	17.793	CONC FLOODWALL-HORZ
P2A79	556459.072	3666989.796	30°01'28.20796"N	90°06'46.97941"W	5.426	17.802	CONC FLOODWALL-HORZ
P2A8	557268.432	3666992.733	30°01'36.21927"N	90°06'46.84795"W	1.731	5.679	4111
P2A80	556459.620	3666991.258	30°01'28.21323"N	90°06'46.96271"W	5.435	17.832	CONC FLOODWALL-HORZ
P2A81	556444.837	3666998.044	30°01'28.06618"N	90°06'46.88731"W	5.452	17.886	CONC FLOODWALL-HORZ
P2A82	556444.183	3666998.302	30°01'28.05968"N	90°06'46.88446"W	5.249	17.220	CONC FLOODWALL-HORZ
P2A83	556437.625	3667001.063	30°01'27.99448"N	90°06'46.85385"W	5.250	17.226	CONC FLOODWALL-HORZ
P2A84	556437.329	3667000.635	30°01'27.99159"N	90°06'46.85874"W	5.249	17.220	CONC FLOODWALL-HORZ
P2A85	556436.466	3667000.221	30°01'27.98309"N	90°06'46.86357"W	5.255	17.241	CONC FLOODWALL-HORZ
P2A86	556435.740	3667000.191	30°01'27.97591"N	90°06'46.86399"W	5.254	17.237	CONC FLOODWALL-HORZ
P2A87	556435.523	3667003.138	30°01'27.97344"N	90°06'46.83050"W	5.252	17.232	CONC FLOODWALL-HORZ
P2A88	556440.497	3667003.477	30°01'28.02265"N	90°06'46.82604"W	5.244	17.206	CONC FLOODWALL-HORZ
P2A89	556440.652	3667002.106	30°01'28.02433"N	90°06'46.84161"W	5.250	17.226	CONC FLOODWALL-HORZ
P2A9	557266.501	3666985.650	30°01'36.20091"N	90°06'46.92875"W	1.704	5.589	4111
P2A90	556445.045	3667000.167	30°01'28.06802"N	90°06'46.86313"W	5.232	17.165	CONC FLOODWALL-HORZ
P2A91	556445.353	3667000.133	30°01'28.07107"N	90°06'46.86349"W	5.458	17.908	CONC FLOODWALL-HORZ
P2A92	556459.959	3666993.429	30°01'28.21635"N	90°06'46.93798"W	5.433	17.824	CONC FLOODWALL-HORZ
P2A93	556468.453	3666994.215	30°01'28.30036"N	90°06'46.92800"W	5.444	17.860	CONC FLOODWALL-HORZ
P2A94	557239.330	3667866.545	30°01'35.83898"N	90°06'36.91129"W	0.694	2.276	3111-ASPHALT
P2A95	557244.230	3667883.973	30°01'35.88564"N	90°06'36.71244"W	0.690	2.265	3111-ASPHALT

P2A96	557249.458	3667901.112	30°01'35.93558"N	90°06'36.51684"W	0.678	2.223	3111-ASPHALT
P2A97	557254.240	3667918.599	30°01'35.98107"N	90°06'36.31734"W	0.657	2.157	3111-ASPHALT
P2A98	557259.952	3667935.561	30°01'36.03582"N	90°06'36.12369"W	0.659	2.161	3111-ASPHALT
P2A99	557284.608	3667927.561	30°01'36.28073"N	90°06'36.21169"W	0.755	2.477	3111-ASPHALT

RTK GPS Log

Project Name: IPET TASK GROUP 6-LIDAR CHECKS
Project No: GROUND TRUTH PATCH AREA-PATCH 3
Project Location: LAKE PONT.-NEW ORLEANS

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	LOND		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P3A1	P3A10	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6111
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P3A11	P3A25	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3111
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P3A26	P3A40	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P3A41	P3A44	0.20FT.	TRIMBLE MICRO-CENTERED L1/L2	CANOPY ROOF CORNERS-HORZ
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P3A45	P3A59	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111-CONC
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P3A60	P3A72	2.063M	TRIMBLE MICRO-CENTERED L1/L2	A131-SLOPE
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P3A73	P3A83	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6131-SLOPE
01/07/06	PATCH 3	GRAHAM	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P3A	P3A	2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK

Ground Check-Point Descriptive Codes

Surface Type		Sky Visibility		Surface Slope		Confidence	
1	Dirt	1	Open	1	Flat	1	Good
2	Sand	2	Part open	2	Slight Slope	2	Fair
3	Asphalt	3	Covered	3	Slope	3	Bad
4	Concrete						
5	Tall Grass						
6	Mowed Grass						
7	Trees and Brush						
8	Weeds and short grass						
9	Thick brush						
A	Thich cut grass						
B	Cultivated field - unplowed						
C	Limestone						
D	Trees and grass						
E	Gravel						
F	Brush and grass						

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Project : Patch 3
Coordinate System: US State Plane 1983, Zone: Louisiana South 1702
Project Datum: NAD 1983 (Conus)
Geoid Model: GEOID03 (Conus)
Coordinate Units: US survey feet
Distance Units: US survey feet
Height Units: US survey feet

					Meters	Feet	
Name	Northing	Easting	Latituide	Longitude	Elevation	Elevation	Feature Code
GRAHAM	559306.746	3678459	30°01'55.16917"N	90°04'36.15917"W	1.911	6.270	RTK BASE
LOND	555491.698	3680327	30°01'17.20195"N	90°04'15.38210"W	2.671	8.762	CHK
P3A1	559177.143	3680105	30°01'53.70724"N	90°04'17.45196"W	1.394	4.574	6111
P3A10	559223.785	3680239	30°01'54.15426"N	90°04'15.91480"W	1.248	4.096	6111
P3A11	559271.814	3680127	30°01'54.64192"N	90°04'17.18495"W	1.723	5.654	3111
P3A12	559266.824	3680112	30°01'54.59413"N	90°04'17.35358"W	1.743	5.718	3111
P3A13	559261.834	3680097	30°01'54.54639"N	90°04'17.52718"W	1.764	5.789	3111
P3A14	559256.233	3680080	30°01'54.49284"N	90°04'17.72491"W	1.805	5.923	3111
P3A15	559250.676	3680063	30°01'54.43963"N	90°04'17.91239"W	1.827	5.995	3111
P3A16	559245.419	3680047	30°01'54.38943"N	90°04'18.10559"W	1.845	6.054	3111
P3A17	559240.194	3680029	30°01'54.33958"N	90°04'18.30153"W	1.865	6.119	3111
P3A18	559234.581	3680013	30°01'54.28580"N	90°04'18.48862"W	1.882	6.173	3111
P3A19	559229.208	3679997	30°01'54.23437"N	90°04'18.67287"W	1.903	6.245	3111
P3A2	559181.550	3680119	30°01'53.74931"N	90°04'17.28971"W	1.335	4.380	6111
P3A20	559223.578	3679981	30°01'54.18042"N	90°04'18.85873"W	1.935	6.350	3111
P3A21	559217.756	3679963	30°01'54.12473"N	90°04'19.06194"W	1.956	6.416	3111
P3A22	559211.841	3679944	30°01'54.06820"N	90°04'19.27380"W	1.964	6.442	3111
P3A23	559207.770	3679929	30°01'54.02951"N	90°04'19.44310"W	1.969	6.461	3111
P3A24	559203.242	3679914	30°01'53.98638"N	90°04'19.61947"W	1.966	6.449	3111
P3A25	559198.379	3679899	30°01'53.93990"N	90°04'19.79281"W	1.956	6.418	3111
P3A26	559242.263	3679575	30°01'54.40956"N	90°04'23.47112"W	1.542	5.060	4111
P3A27	559252.320	3679582	30°01'54.50838"N	90°04'23.39420"W	1.548	5.078	4111
P3A28	559262.688	3679588	30°01'54.61027"N	90°04'23.31520"W	1.538	5.046	4111
P3A29	559273.358	3679595	30°01'54.71512"N	90°04'23.23328"W	1.521	4.989	4111
P3A3	559185.548	3680132	30°01'53.78747"N	90°04'17.14050"W	1.294	4.247	6111
P3A30	559281.518	3679601	30°01'54.79530"N	90°04'23.17034"W	1.529	5.018	4111
P3A31	559290.193	3679606	30°01'54.88057"N	90°04'23.10669"W	1.530	5.019	4111
P3A32	559299.035	3679612	30°01'54.96745"N	90°04'23.03797"W	1.542	5.059	4111
P3A33	559308.168	3679618	30°01'55.05720"N	90°04'22.96925"W	1.544	5.065	4111
P3A34	559318.321	3679625	30°01'55.15698"N	90°04'22.89209"W	1.536	5.040	4111
P3A35	559326.501	3679631	30°01'55.23730"N	90°04'22.82278"W	1.546	5.072	4111
P3A36	559336.458	3679639	30°01'55.33498"N	90°04'22.72958"W	1.544	5.066	4111
P3A37	559344.774	3679646	30°01'55.41652"N	90°04'22.64759"W	1.545	5.070	4111
P3A38	559352.334	3679653	30°01'55.49058"N	90°04'22.56469"W	1.530	5.021	4111
P3A39	559359.377	3679661	30°01'55.55950"N	90°04'22.48096"W	1.529	5.016	4111
P3A4	559190.712	3680145	30°01'53.83718"N	90°04'16.99353"W	1.269	4.162	6111
P3A40	559366.491	3679668	30°01'55.62910"N	90°04'22.39431"W	1.523	4.998	4111
P3A41	559382.660	3679600	30°01'55.79657"N	90°04'23.16879"W	4.670	15.321	CANOPY ROOF CORNERS-HORZ
P3A42	559400.906	3679593	30°01'55.97799"N	90°04'23.25021"W	4.687	15.378	CANOPY ROOF CORNERS-HORZ
P3A43	559393.645	3679574	30°01'55.90809"N	90°04'23.45834"W	4.673	15.330	CANOPY ROOF CORNERS-HORZ
P3A44	559375.420	3679582	30°01'55.72691"N	90°04'23.37792"W	4.692	15.395	CANOPY ROOF CORNERS-HORZ
P3A45	559396.778	3680028	30°01'55.88967"N	90°04'18.29399"W	1.393	4.569	4111-CONC
P3A46	559405.961	3680029	30°01'55.98053"N	90°04'18.28895"W	1.490	4.889	4111-CONC
P3A47	559415.416	3680029	30°01'56.07413"N	90°04'18.28876"W	1.524	5.001	4111-CONC
P3A48	559415.857	3680011	30°01'56.08040"N	90°04'18.48768"W	1.537	5.043	4111-CONC

P3A49	559406.528	3680011	30°01'55.98807"N	90°04'18.49086"W	1.499	4.919	4111-CONC
P3A5	559195.537	3680161	30°01'53.88323"N	90°04'16.81369"W	1.251	4.105	6111
P3A50	559397.403	3680011	30°01'55.89779"N	90°04'18.49589"W	1.387	4.551	4111-CONC
P3A51	559398.010	3679992	30°01'55.90577"N	90°04'18.70152"W	1.397	4.583	4111-CONC
P3A52	559407.219	3679993	30°01'55.99690"N	90°04'18.69739"W	1.507	4.943	4111-CONC
P3A53	559416.617	3679993	30°01'56.08987"N	90°04'18.69095"W	1.528	5.014	4111-CONC
P3A54	559417.318	3679975	30°01'56.09879"N	90°04'18.89779"W	1.527	5.011	4111-CONC
P3A55	559407.742	3679975	30°01'56.00402"N	90°04'18.90077"W	1.508	4.946	4111-CONC
P3A56	559398.632	3679974	30°01'55.91390"N	90°04'18.90752"W	1.399	4.590	4111-CONC
P3A57	559399.323	3679956	30°01'55.92268"N	90°04'19.11080"W	1.413	4.635	4111-CONC
P3A58	559408.397	3679956	30°01'56.01250"N	90°04'19.10940"W	1.514	4.968	4111-CONC
P3A59	559417.871	3679957	30°01'56.10624"N	90°04'19.10365"W	1.528	5.014	4111-CONC
P3A6	559201.247	3680176	30°01'53.93803"N	90°04'16.63413"W	1.231	4.038	6111
P3A60	559097.440	3679673	30°01'52.96535"N	90°04'22.37535"W	1.154	3.785	A131-SLOPE
P3A61	559089.474	3679676	30°01'52.88618"N	90°04'22.34380"W	1.209	3.968	A131-SLOPE
P3A62	559083.601	3679678	30°01'52.82782"N	90°04'22.32122"W	1.550	5.085	A131-SLOPE
P3A63	559069.575	3679682	30°01'52.68855"N	90°04'22.27809"W	2.969	9.741	A131-SLOPE
P3A64	559057.577	3679683	30°01'52.56967"N	90°04'22.26718"W	4.289	14.070	A131-SLOPE
P3A65	559050.395	3679685	30°01'52.49838"N	90°04'22.24768"W	4.940	16.207	A131-SLOPE
P3A66	559038.766	3679687	30°01'52.38299"N	90°04'22.22039"W	4.890	16.043	A131-SLOPE
P3A67	559033.005	3679689	30°01'52.32580"N	90°04'22.20289"W	4.397	14.426	A131-SLOPE
P3A68	559023.904	3679691	30°01'52.23542"N	90°04'22.17475"W	3.329	10.921	A131-SLOPE
P3A69	559012.896	3679694	30°01'52.12614"N	90°04'22.14201"W	2.066	6.779	A131-SLOPE
P3A7	559206.847	3680192	30°01'53.99179"N	90°04'16.45922"W	1.258	4.126	6111
P3A70	559004.255	3679697	30°01'52.04030"N	90°04'22.11189"W	1.276	4.185	A131-SLOPE
P3A71	558998.590	3679699	30°01'51.98399"N	90°04'22.08814"W	1.091	3.578	A131-SLOPE
P3A72	558984.484	3679702	30°01'51.84400"N	90°04'22.05173"W	0.977	3.205	A131-SLOPE
P3A73	558875.193	3679569	30°01'50.77671"N	90°04'23.58565"W	1.038	3.404	6131-SLOPE
P3A74	558870.469	3679552	30°01'50.73173"N	90°04'23.77249"W	1.165	3.823	6131-SLOPE
P3A75	558867.406	3679540	30°01'50.70274"N	90°04'23.91185"W	1.234	4.049	6131-SLOPE
P3A76	558866.493	3679537	30°01'50.69404"N	90°04'23.94818"W	1.482	4.862	6131-SLOPE
P3A77	558863.745	3679525	30°01'50.66814"N	90°04'24.08312"W	2.652	8.700	6131-SLOPE
P3A78	558861.775	3679517	30°01'50.64949"N	90°04'24.17262"W	3.423	11.229	6131-SLOPE
P3A79	558859.764	3679510	30°01'50.63041"N	90°04'24.25889"W	3.469	11.381	6131-SLOPE
P3A8	559212.127	3680207	30°01'54.04237"N	90°04'16.28324"W	1.275	4.184	6111
P3A80	558859.103	3679508	30°01'50.62409"N	90°04'24.28295"W	3.307	10.850	6131-SLOPE
P3A81	558857.009	3679501	30°01'50.60415"N	90°04'24.36472"W	2.520	8.268	6131-SLOPE
P3A82	558855.990	3679497	30°01'50.59446"N	90°04'24.40612"W	2.251	7.386	6131-SLOPE
P3A83	558849.124	3679477	30°01'50.52861"N	90°04'24.62959"W	2.074	6.806	6131-SLOPE
P3A9	559218.776	3680224	30°01'54.10630"N	90°04'16.08538"W	1.243	4.078	6111

RTK GPS Log

Project Name: IPET TASK GROUP 6-LIDAR CHECKS
Project No: GROUND TRUTH PATCH AREA-PATCH 4
Project Location: LAKE PONT.-NEW ORLEANS

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	OP 16		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P4A1	P4A10	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6131-SLOPE
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P4A11	P4A22	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4121-FLOODWALL-HORZ
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P4A23	P4A37	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3111
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P4A38	P4A47	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6111
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P4A48	P4A62	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P4A63	P4A82	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111-CONC
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P4A83	P4A86	0.20FT.	TRIMBLE MICRO-CENTERED L1/L2	BLDG ROOF CORNERS-HORZ
01/07/06	PATCH 4	AP 01	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	OP 16		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK

Ground Check-Point Descriptive Codes

Surface Type		Sky Visibility		Surface Slope		Confidence	
1	Dirt	1	Open	1	Flat	1	Good
2	Sand	2	Part open	2	Slight Slope	2	Fair
3	Asphalt	3	Covered	3	Slope	3	Bad
4	Concrete						
5	Tall Grass						
6	Mowed Grass						
7	Trees and Brush						
8	Weeds and short grass						
9	Thick brush						
A	Thich cut grass						
B	Cultivated field - unplowed						
C	Limestone						
D	Trees and grass						
E	Gravel						
F	Brush and grass						

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Project : Patch 4
Coordinate System: US State Plane 1983, Zone: Louisiana South 1702
Project Datum: NAD 1983 (Conus)
Geoid Model: GEOID03 (Conus)
Coordinate Units: US survey feet
Distance Units: US survey feet
Height Units: US survey feet

					Meters	Feet	
Name	Northing	Easting	Latitude	Longitude	Elevation	Elevation	Feature Code
AP01	560498.735	3694700.045	30°02'05.16913"N	90°01'31.24202"W	0.249	0.817	RTK BASE
OP16	561059.044	3699352.996	30°02'10.18669"N	90°00'38.23428"W	-1.121	-3.678	CHK
P4A1	560918.046	3696965.187	30°02'09.06308"N	90°01'05.41793"W	1.554	5.097	6131-SLOPE
P4A10	560847.611	3696989.131	30°02'08.36315"N	90°01'05.15472"W	-0.297	-0.973	6131-SLOPE
P4A11	560855.024	3696867.705	30°02'08.45032"N	90°01'06.53517"W	4.304	14.121	4121-FLOODWALL-HORZ
P4A12	560851.536	3696858.161	30°02'08.41688"N	90°01'06.64420"W	4.302	14.114	4121-FLOODWALL-HORZ
P4A13	560848.201	3696838.449	30°02'08.38611"N	90°01'06.86889"W	3.704	12.151	4121-FLOODWALL-HORZ
P4A14	560841.115	3696795.459	30°02'08.32084"N	90°01'07.35890"W	3.708	12.165	4121-FLOODWALL-HORZ
P4A15	560840.819	3696795.433	30°02'08.31792"N	90°01'07.35923"W	3.710	12.171	4121-FLOODWALL-HORZ
P4A16	560839.595	3696787.980	30°02'08.30665"N	90°01'07.44418"W	3.693	12.115	4121-FLOODWALL-HORZ
P4A17	560838.692	3696788.148	30°02'08.29769"N	90°01'07.44238"W	3.704	12.153	4121-FLOODWALL-HORZ
P4A18	560839.923	3696795.564	30°02'08.30904"N	90°01'07.35785"W	3.708	12.166	4121-FLOODWALL-HORZ
P4A19	560839.566	3696795.667	30°02'08.30550"N	90°01'07.35673"W	3.705	12.154	4121-FLOODWALL-HORZ
P4A2	560914.343	3696966.426	30°02'09.02629"N	90°01'05.40431"W	1.673	5.489	6131-SLOPE
P4A20	560846.679	3696838.779	30°02'08.37100"N	90°01'06.86534"W	3.712	12.177	4121-FLOODWALL-HORZ
P4A21	560849.929	3696858.490	30°02'08.40094"N	90°01'06.64067"W	4.309	14.136	4121-FLOODWALL-HORZ
P4A22	560853.528	3696868.225	30°02'08.43546"N	90°01'06.52945"W	4.303	14.116	4121-FLOODWALL-HORZ
P4A23	561619.819	3697034.436	30°02'16.00178"N	90°01'04.53845"W	1.983	6.505	3111
P4A24	561633.150	3697022.670	30°02'16.13508"N	90°01'04.67058"W	1.977	6.487	3111
P4A25	561645.664	3697009.422	30°02'16.26046"N	90°01'04.81966"W	1.959	6.428	3111
P4A26	561657.770	3696996.563	30°02'16.38175"N	90°01'04.96437"W	1.950	6.397	3111
P4A27	561669.391	3696984.495	30°02'16.49816"N	90°01'05.10016"W	1.942	6.371	3111
P4A28	561681.514	3696971.917	30°02'16.61959"N	90°01'05.24167"W	1.959	6.427	3111
P4A29	561693.973	3696958.568	30°02'16.74443"N	90°01'05.39191"W	1.971	6.467	3111
P4A3	560905.227	3696969.713	30°02'08.93567"N	90°01'05.36811"W	2.790	9.152	6131-SLOPE
P4A30	561706.215	3696945.221	30°02'16.86713"N	90°01'05.54216"W	2.002	6.567	3111
P4A31	561718.260	3696933.144	30°02'16.98773"N	90°01'05.67799"W	2.012	6.600	3111
P4A32	561730.055	3696920.126	30°02'17.10596"N	90°01'05.82455"W	2.028	6.653	3111
P4A33	561741.835	3696907.616	30°02'17.22398"N	90°01'05.96533"W	2.001	6.565	3111
P4A34	561753.756	3696894.841	30°02'17.34344"N	90°01'06.10912"W	1.953	6.408	3111
P4A35	561766.198	3696881.427	30°02'17.46812"N	90°01'06.26011"W	1.951	6.401	3111
P4A36	561777.993	3696868.989	30°02'17.58629"N	90°01'06.40007"W	1.966	6.451	3111
P4A37	561789.563	3696856.102	30°02'17.70228"N	90°01'06.54518"W	1.953	6.407	3111
P4A38	561282.374	3697038.931	30°02'12.66104"N	90°01'04.53139"W	1.326	4.350	6111
P4A39	561280.661	3697051.698	30°02'12.64264"N	90°01'04.38637"W	1.357	4.452	6111
P4A4	560899.053	3696972.276	30°02'08.87427"N	90°01'05.33975"W	3.610	11.844	6131-SLOPE
P4A40	561279.293	3697065.953	30°02'12.62747"N	90°01'04.22437"W	1.347	4.420	6111
P4A41	561276.838	3697078.960	30°02'12.60169"N	90°01'04.07672"W	1.345	4.412	6111
P4A42	561274.291	3697090.662	30°02'12.57515"N	90°01'03.94391"W	1.306	4.284	6111
P4A43	561271.181	3697103.685	30°02'12.54289"N	90°01'03.79617"W	1.270	4.166	6111
P4A44	561268.948	3697120.105	30°02'12.51892"N	90°01'03.60965"W	1.350	4.430	6111
P4A45	561267.276	3697137.539	30°02'12.50038"N	90°01'03.41152"W	1.321	4.333	6111

P4A46	561264.372	3697151.758	30°02'12.47002"N	90°01'03.25014"W	1.348	4.421	6111
P4A47	561262.740	3697163.127	30°02'12.45257"N	90°01'03.12102"W	1.337	4.387	6111
P4A48	561041.267	3696984.735	30°02'10.28057"N	90°01'05.17945"W	1.585	5.201	4111
P4A49	561044.899	3696994.845	30°02'10.31537"N	90°01'05.06395"W	1.602	5.256	4111
P4A5	560894.752	3696973.196	30°02'08.83159"N	90°01'05.32985"W	3.886	12.750	6131-SLOPE
P4A50	561048.500	3697004.773	30°02'10.34989"N	90°01'04.95054"W	1.623	5.325	4111
P4A51	561052.401	3697015.396	30°02'10.38730"N	90°01'04.82917"W	1.629	5.345	4111
P4A52	561055.772	3697024.776	30°02'10.41961"N	90°01'04.72202"W	1.611	5.287	4111
P4A53	561059.230	3697034.295	30°02'10.45275"N	90°01'04.61327"W	1.621	5.318	4111
P4A54	561062.511	3697043.286	30°02'10.48421"N	90°01'04.51056"W	1.618	5.308	4111
P4A55	561065.931	3697052.673	30°02'10.51700"N	90°01'04.40332"W	1.619	5.312	4111
P4A56	561069.192	3697061.687	30°02'10.54825"N	90°01'04.30034"W	1.620	5.314	4111
P4A57	561072.558	3697070.810	30°02'10.58054"N	90°01'04.19612"W	1.619	5.312	4111
P4A58	561075.723	3697079.766	30°02'10.61084"N	90°01'04.09382"W	1.616	5.303	4111
P4A59	561079.237	3697089.344	30°02'10.64454"N	90°01'03.98439"W	1.606	5.270	4111
P4A6	560888.286	3696975.488	30°02'08.76733"N	90°01'05.30462"W	3.818	12.527	6131-SLOPE
P4A60	561082.440	3697098.142	30°02'10.67524"N	90°01'03.88388"W	1.598	5.243	4111
P4A61	561085.754	3697107.124	30°02'10.70703"N	90°01'03.78126"W	1.594	5.231	4111
P4A62	561088.183	3697113.924	30°02'10.73030"N	90°01'03.70358"W	1.593	5.227	4111
P4A63	561104.163	3697080.229	30°02'10.89230"N	90°01'04.08483"W	1.790	5.872	4111-CONC
P4A64	561099.343	3697067.306	30°02'10.84606"N	90°01'04.23248"W	1.809	5.936	4111-CONC
P4A65	561094.712	3697054.022	30°02'10.80173"N	90°01'04.38422"W	1.831	6.006	4111-CONC
P4A66	561090.147	3697041.813	30°02'10.75794"N	90°01'04.52370"W	1.832	6.011	4111-CONC
P4A67	561086.143	3697030.044	30°02'10.71964"N	90°01'04.65812"W	1.826	5.991	4111-CONC
P4A68	561097.541	3697026.075	30°02'10.83291"N	90°01'04.70178"W	1.777	5.829	4111-CONC
P4A69	561101.628	3697038.184	30°02'10.87199"N	90°01'04.56350"W	1.783	5.851	4111-CONC
P4A7	560884.134	3696976.686	30°02'08.72609"N	90°01'05.29154"W	3.509	11.513	6131-SLOPE
P4A70	561105.987	3697049.944	30°02'10.91380"N	90°01'04.42914"W	1.800	5.904	4111-CONC
P4A71	561110.863	3697063.181	30°02'10.96057"N	90°01'04.27790"W	1.784	5.852	4111-CONC
P4A72	561115.555	3697076.563	30°02'11.00549"N	90°01'04.12505"W	1.779	5.835	4111-CONC
P4A73	561126.137	3697072.862	30°02'11.11065"N	90°01'04.16577"W	1.770	5.806	4111-CONC
P4A74	561121.297	3697059.307	30°02'11.06429"N	90°01'04.32061"W	1.769	5.805	4111-CONC
P4A75	561116.525	3697046.078	30°02'11.01856"N	90°01'04.47174"W	1.781	5.842	4111-CONC
P4A76	561112.572	3697034.526	30°02'10.98073"N	90°01'04.60368"W	1.782	5.846	4111-CONC
P4A77	561108.454	3697022.328	30°02'10.94136"N	90°01'04.74299"W	1.770	5.808	4111-CONC
P4A78	561122.181	3697017.703	30°02'11.07776"N	90°01'04.79381"W	1.709	5.608	4111-CONC
P4A79	561126.637	3697030.114	30°02'11.12046"N	90°01'04.65204"W	1.726	5.663	4111-CONC
P4A8	560873.070	3696980.307	30°02'08.61616"N	90°01'05.25178"W	2.286	7.501	6131-SLOPE
P4A80	561130.231	3697041.150	30°02'11.15479"N	90°01'04.52602"W	1.738	5.701	4111-CONC
P4A81	561134.867	3697054.457	30°02'11.19916"N	90°01'04.37403"W	1.733	5.685	4111-CONC
P4A82	561139.833	3697068.836	30°02'11.24668"N	90°01'04.20978"W	1.715	5.625	4111-CONC
P4A83	561310.873	3697210.314	30°02'12.92366"N	90°01'02.57789"W	6.281	20.607	BLDG ROOF-HORZ
P4A84	561368.448	3697190.027	30°02'13.49588"N	90°01'02.80117"W	6.326	20.756	BLDG ROOF-HORZ
P4A85	561388.784	3697247.624	30°02'13.69063"N	90°01'02.14325"W	6.258	20.530	BLDG ROOF-HORZ
P4A86	561331.231	3697267.793	30°02'13.11864"N	90°01'01.92131"W	6.260	20.537	BLDG ROOF-HORZ
P4A9	560860.097	3696984.948	30°02'08.48722"N	90°01'05.20068"W	0.797	2.616	6131-SLOPE

RTK GPS Log

Project Name: IPET TASK GROUP 6-LIDAR CHECKS
Project No: GROUND TRUTH PATCH AREA-PATCH 5
Project Location: LAKE PONT.-NEW ORLEANS

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
01/10/06	PATCH 5	PAT5	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	AG06		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK
01/10/06	PATCH 5	PAT5	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	PA5A1	PA5A15	2.063M	TRIMBLE MICRO-CENTERED L1/L2	3111
01/10/06	PATCH 5	PAT5	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	PA5A16	PA5A18	0.20FT.	TRIMBLE MICRO-CENTERED L1/L2	BLDG ROOF CORNERS-HORZ
01/10/06	PATCH 5	PAT5	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	PA5A19	PA5A28	2.063M	TRIMBLE MICRO-CENTERED L1/L2	5111
01/10/06	PATCH 5	PAT5	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	PA5A29	PA5A49	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111-CONC-BRIDGE
01/10/06	PATCH 5	PAT5	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	PA5A50	PA5A59	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6131-SLOPE
01/10/06	PATCH 5	PAT5	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	PA5A60	PA5A72	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111-CONC-FLOODWALL-HORZ
01/10/06	PATCH 5	PAT5	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	AG06		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK

Ground Check-Point Descriptive Codes

Surface Type		Sky Visibility		Surface Slope		Confidence	
1	Dirt	1	Open	1	Flat	1	Good
2	Sand	2	Part open	2	Slight Slope	2	Fair
3	Asphalt	3	Covered	3	Slope	3	Bad
4	Concrete						
5	Tall Grass						
6	Mowed Grass						
7	Trees and Brush						
8	Weeds and short grass						
9	Thick brush						
A	Thich cut grass						
B	Cultivated field - unplowed						
C	Limestone						
D	Trees and grass						
E	Gravel						
F	Brush and grass						

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Project : Patch 5
Coordinate System: US State Plane 1983, Zone: Louisiana South 1702
Project Datum: NAD 1983 (Conus)
Geoid Model: GEOID03 (Conus)
Coordinate Units: US survey feet
Distance Units: US survey feet
Height Units: US survey feet

					Meters	Feet	
Name	Northing	Easting	Latitude	Longitude	Elevation	Elevation	Feature Code
AG06	599773.102	3745246.629	30°08'27.86084"N	89°51'50.47976"W	1.034	3.392	CHK
PA5A1	596320.536	3744312.635	30°07'53.80483"N	89°52'01.61963"W	1.120	3.673	3111
PA5A10	596481.467	3744350.581	30°07'55.39297"N	89°52'01.16407"W	1.028	3.372	3111
PA5A11	596498.029	3744354.720	30°07'55.55637"N	89°52'01.11452"W	1.040	3.411	3111
PA5A12	596515.882	3744359.848	30°07'55.73244"N	89°52'01.05353"W	1.041	3.414	3111
PA5A13	596532.903	3744363.439	30°07'55.90046"N	89°52'01.01016"W	1.032	3.385	3111
PA5A14	596549.104	3744367.626	30°07'56.06029"N	89°52'00.96012"W	1.009	3.312	3111
PA5A15	596565.704	3744371.598	30°07'56.22410"N	89°52'00.91246"W	0.981	3.220	3111
PA5A16	596569.699	3744326.377	30°07'56.26937"N	89°52'01.42684"W	4.751	15.588	BLDG ROOF CORNERS-HORZ
PA5A17	596534.977	3744317.992	30°07'55.92675"N	89°52'01.52738"W	4.598	15.084	BLDG ROOF CORNERS-HORZ
PA5A18	596543.999	3744281.374	30°07'56.02069"N	89°52'01.94305"W	4.734	15.531	BLDG ROOF CORNERS-HORZ
PA5A19	597636.654	3744577.152	30°08'06.79862"N	89°51'58.41558"W	0.633	2.078	5111
PA5A2	596338.351	3744316.605	30°07'53.98066"N	89°52'01.57182"W	1.082	3.549	3111
PA5A20	597641.974	3744578.061	30°08'06.85116"N	89°51'58.40446"W	0.671	2.202	5111
PA5A21	597646.898	3744579.084	30°08'06.89978"N	89°51'58.39210"W	0.642	2.106	5111
PA5A22	597652.872	3744580.365	30°08'06.95874"N	89°51'58.37663"W	0.628	2.059	5111
PA5A23	597659.877	3744582.496	30°08'07.02781"N	89°51'58.35135"W	0.634	2.079	5111
PA5A24	597658.085	3744591.536	30°08'07.00893"N	89°51'58.24866"W	0.636	2.086	5111
PA5A25	597652.131	3744591.725	30°08'06.94997"N	89°51'58.24737"W	0.636	2.087	5111
PA5A26	597646.455	3744591.791	30°08'06.89377"N	89°51'58.24745"W	0.677	2.221	5111
PA5A27	597640.689	3744591.837	30°08'06.83669"N	89°51'58.24777"W	0.725	2.377	5111
PA5A28	597635.520	3744591.406	30°08'06.78559"N	89°51'58.25343"W	0.716	2.348	5111
PA5A29	595989.883	3744246.114	30°07'50.54036"N	89°52'02.42530"W	1.304	4.279	4111-CONC-BRIDGE
PA5A3	596356.602	3744320.767	30°07'54.16079"N	89°52'01.52177"W	1.026	3.366	3111
PA5A30	596009.698	3744248.889	30°07'50.73614"N	89°52'02.39082"W	1.369	4.493	4111-CONC-BRIDGE
PA5A31	596029.585	3744251.659	30°07'50.93263"N	89°52'02.35638"W	1.400	4.592	4111-CONC-BRIDGE
PA5A32	596049.319	3744254.440	30°07'51.12762"N	89°52'02.32183"W	1.416	4.646	4111-CONC-BRIDGE
PA5A33	596069.192	3744257.217	30°07'51.32397"N	89°52'02.28731"W	1.400	4.593	4111-CONC-BRIDGE
PA5A34	596088.892	3744260.069	30°07'51.51860"N	89°52'02.25197"W	1.374	4.508	4111-CONC-BRIDGE
PA5A35	596108.526	3744262.817	30°07'51.71260"N	89°52'02.21782"W	1.322	4.336	4111-CONC-BRIDGE
PA5A36	596106.973	3744272.762	30°07'51.69597"N	89°52'02.10480"W	1.345	4.412	4111-CONC-BRIDGE
PA5A37	596087.102	3744270.307	30°07'51.49959"N	89°52'02.13564"W	1.412	4.633	4111-CONC-BRIDGE
PA5A38	596067.315	3744267.508	30°07'51.30409"N	89°52'02.17040"W	1.439	4.720	4111-CONC-BRIDGE
PA5A39	596047.565	3744264.851	30°07'51.10894"N	89°52'02.20354"W	1.441	4.727	4111-CONC-BRIDGE
PA5A4	596375.428	3744324.875	30°07'54.34662"N	89°52'01.47225"W	1.008	3.307	3111
PA5A40	596027.798	3744262.177	30°07'50.91361"N	89°52'02.23687"W	1.429	4.688	4111-CONC-BRIDGE
PA5A41	596007.881	3744259.454	30°07'50.71681"N	89°52'02.27077"W	1.408	4.618	4111-CONC-BRIDGE
PA5A42	595988.421	3744256.746	30°07'50.52454"N	89°52'02.30445"W	1.359	4.459	4111-CONC-BRIDGE
PA5A43	595987.081	3744267.243	30°07'50.50994"N	89°52'02.18512"W	1.329	4.360	4111-CONC-BRIDGE
PA5A44	596006.525	3744269.880	30°07'50.70207"N	89°52'02.15225"W	1.362	4.467	4111-CONC-BRIDGE
PA5A45	596026.698	3744272.586	30°07'50.90141"N	89°52'02.11850"W	1.381	4.530	4111-CONC-BRIDGE
PA5A46	596046.477	3744275.513	30°07'51.09681"N	89°52'02.08229"W	1.398	4.587	4111-CONC-BRIDGE
PA5A47	596065.896	3744278.247	30°07'51.28868"N	89°52'02.04832"W	1.378	4.520	4111-CONC-BRIDGE
PA5A48	596085.713	3744281.112	30°07'51.48448"N	89°52'02.01281"W	1.367	4.486	4111-CONC-BRIDGE
PA5A49	596105.580	3744284.070	30°07'51.68075"N	89°52'01.97623"W	1.304	4.279	4111-CONC-BRIDGE
PA5A5	596392.651	3744328.932	30°07'54.51657"N	89°52'01.42354"W	1.021	3.349	3111

PA5A50	593472.883	3744165.567	30°07'25.63655"N	89°52'03.70913"W	0.178	0.583	6131-SLOPE
PA5A51	593484.752	3744163.729	30°07'25.75427"N	89°52'03.72833"W	1.002	3.286	6131-SLOPE
PA5A52	593497.393	3744164.224	30°07'25.87933"N	89°52'03.72085"W	2.276	7.468	6131-SLOPE
PA5A53	593511.719	3744164.753	30°07'26.02106"N	89°52'03.71274"W	3.785	12.419	6131-SLOPE
PA5A54	593516.199	3744164.717	30°07'26.06542"N	89°52'03.71250"W	4.084	13.399	6131-SLOPE
PA5A55	593527.130	3744166.041	30°07'26.17345"N	89°52'03.69583"W	4.066	13.340	6131-SLOPE
PA5A56	593530.935	3744166.296	30°07'26.21107"N	89°52'03.69237"W	3.744	12.283	6131-SLOPE
PA5A57	593543.891	3744166.112	30°07'26.33934"N	89°52'03.69258"W	2.402	7.882	6131-SLOPE
PA5A58	593558.770	3744166.465	30°07'26.48657"N	89°52'03.68639"W	1.049	3.440	6131-SLOPE
PA5A59	593566.319	3744165.288	30°07'26.56144"N	89°52'03.69869"W	0.547	1.794	6131-SLOPE
PA5A6	596410.208	3744333.038	30°07'54.68984"N	89°52'01.37423"W	1.019	3.344	3111
PA5A60	593529.919	3744319.298	30°07'26.18164"N	89°52'01.95036"W	3.998	13.116	4111-CONC-FLOODWALL-HORZ
PA5A61	593528.337	3744319.458	30°07'26.16596"N	89°52'01.94877"W	3.995	13.107	4111-CONC-FLOODWALL-HORZ
PA5A62	593532.627	3744379.668	30°07'26.20081"N	89°52'01.26257"W	3.994	13.104	4111-CONC-FLOODWALL-HORZ
PA5A63	593534.846	3744410.238	30°07'26.21889"N	89°52'00.91416"W	3.986	13.078	4111-CONC-FLOODWALL-HORZ
PA5A64	593534.775	3744410.585	30°07'26.21814"N	89°52'00.91022"W	3.831	12.570	4111-CONC-FLOODWALL-HORZ
PA5A65	593535.004	3744413.925	30°07'26.21998"N	89°52'00.87215"W	3.832	12.572	4111-CONC-FLOODWALL-HORZ
PA5A66	593534.314	3744414.022	30°07'26.21315"N	89°52'00.87115"W	3.829	12.561	4111-CONC-FLOODWALL-HORZ
PA5A67	593534.557	3744417.358	30°07'26.21513"N	89°52'00.83313"W	3.833	12.575	4111-CONC-FLOODWALL-HORZ
PA5A68	593537.179	3744417.171	30°07'26.24111"N	89°52'00.83488"W	3.827	12.555	4111-CONC-FLOODWALL-HORZ
PA5A69	593536.950	3744413.745	30°07'26.23927"N	89°52'00.87392"W	3.827	12.555	4111-CONC-FLOODWALL-HORZ
PA5A7	596428.675	3744337.525	30°07'54.87207"N	89°52'01.32044"W	1.055	3.460	3111
PA5A70	593536.380	3744410.410	30°07'26.23405"N	89°52'00.91198"W	3.829	12.563	4111-CONC-FLOODWALL-HORZ
PA5A71	593536.403	3744409.742	30°07'26.23436"N	89°52'00.91958"W	3.989	13.086	4111-CONC-FLOODWALL-HORZ
PA5A72	593534.175	3744379.695	30°07'26.21612"N	89°52'01.26204"W	3.993	13.099	4111-CONC-FLOODWALL-HORZ
PA5A8	596446.405	3744341.687	30°07'55.04703"N	89°52'01.27047"W	1.051	3.449	3111
PA5A9	596463.153	3744345.746	30°07'55.21230"N	89°52'01.22180"W	1.031	3.384	3111
PAT5	595878.070	3744218.430	30°07'49.43710"N	89°52'02.75684"W	0.692	2.270	RTK BASE

RTK GPS Log

Project Name: IPET TASK GROUP 6-LIDAR CHECKS
Project No: GROUND TRUTH PATCH AREA-PATCH 6
Project Location: LAKE PONT.-NEW ORLEANS

Date	Site	Ref. Station	Ant. Hgt	Ant. Type	Start Point	End Point	Ant. Hgt	Ant. Type	Point Code
01/10/06	PATCH 6	PIKE RESET	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	PIKE RM3		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK
01/10/06	PATCH 6	PIKE RESET	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P6A1	P6A4	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111-CONCSLAB-HORZ
01/10/06	PATCH 6	PIKE RESET	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P6A5	P6A12	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6131-SLOPE1
01/10/06	PATCH 6	PIKE RESET	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P6A13	P6A21	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6131-SLOPE2
01/10/06	PATCH 6	PIKE RESET	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P6A22	P6A41	2.063M	TRIMBLE MICRO-CENTERED L1/L2	4111-SLAB CONC
01/10/06	PATCH 6	PIKE RESET	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P6A42	P6A45	0.20FT.	TRIMBLE MICRO-CENTERED L1/L2	BLDG ROOF CORNERS-HORZ
01/10/06	PATCH 6	PIKE RESET	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	P6A46	P6A55	2.063M	TRIMBLE MICRO-CENTERED L1/L2	6111
01/10/06	PATCH 6	PIKE RESET	2.063M	TRIMBLE COMP. L1/L2 W/GRD.PLANE	PIKE RM3		2.063M	TRIMBLE MICRO-CENTERED L1/L2	CHK

Ground Check-Point Descriptive Codes

Surface Type		Sky Visibility		Surface Slope		Confidence	
1	Dirt	1	Open	1	Flat	1	Good
2	Sand	2	Part open	2	Slight Slope	2	Fair
3	Asphalt	3	Covered	3	Slope	3	Bad
4	Concrete						
5	Tall Grass						
6	Mowed Grass						
7	Trees and Brush						
8	Weeds and short grass						
9	Thick brush						
A	Thich cut grass						
B	Cultivated field - unplowed						
C	Limestone						
D	Trees and grass						
E	Gravel						
F	Brush and grass						

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Project : Patch 6
Coordinate System: US State Plane 1983, Zone: Louisiana South 1702
Project Datum: NAD 1983 (Conus)
Geoid Model: GEOID03 (Conus)
Coordinate Units: US survey feet
Distance Units: US survey feet
Height Units: US survey feet

					Meters	Feet	
Name	Northing	Easting	Latitude	Longitude	Elevation	Elevation	Feature Code
P6A1	609560.113	3785078.908	30°09'59.46102"N	89°44'15.30682"W	2.742	8.996	411-CONC SLAB-HORZ
P6A10	609389.794	3785062.561	30°09'57.77744"N	89°44'15.52005"W	2.020	6.627	6131-SLOPE1
P6A11	609388.049	3785065.989	30°09'57.75970"N	89°44'15.48128"W	1.524	5.001	6131-SLOPE1
P6A12	609386.073	3785071.545	30°09'57.73937"N	89°44'15.41830"W	0.737	2.418	6131-SLOPE1
P6A13	609331.290	3785075.100	30°09'57.19664"N	89°44'15.38650"W	0.935	3.068	6131-SLOPE2
P6A14	609328.296	3785073.326	30°09'57.16725"N	89°44'15.40718"W	1.485	4.871	6131-SLOPE2
P6A15	609322.974	3785069.913	30°09'57.11504"N	89°44'15.44690"W	2.219	7.28	6131-SLOPE2
P6A16	609320.379	3785069.300	30°09'57.08944"N	89°44'15.45429"W	2.306	7.564	6131-SLOPE2
P6A17	609318.179	3785069.692	30°09'57.06761"N	89°44'15.45018"W	3.098	10.164	6131-SLOPE2
P6A18	609303.358	3785064.935	30°09'56.92157"N	89°44'15.50672"W	2.950	9.678	6131-SLOPE2
P6A19	609294.051	3785059.360	30°09'56.83021"N	89°44'15.57169"W	2.268	7.44	6131-SLOPE2
P6A2	609571.638	3785072.206	30°09'59.57602"N	89°44'15.38134"W	2.757	9.046	411-CONC SLAB-HORZ
P6A20	609281.665	3785053.903	30°09'56.70837"N	89°44'15.63582"W	1.123	3.685	6131-SLOPE2
P6A21	609273.519	3785050.165	30°09'56.62825"N	89°44'15.67969"W	0.833	2.734	6131-SLOPE2
P6A22	609159.821	3784908.498	30°09'55.52239"N	89°44'17.31147"W	1.091	3.58	4111-SLAB CONC
P6A23	609166.951	3784887.829	30°09'55.59581"N	89°44'17.54577"W	1.178	3.864	4111-SLAB CONC
P6A24	609136.399	3784877.501	30°09'55.29483"N	89°44'17.66828"W	1.195	3.919	4111-SLAB CONC
P6A25	609118.051	3784856.033	30°09'55.11618"N	89°44'17.91573"W	1.190	3.905	4111-SLAB CONC
P6A26	609111.164	3784824.777	30°09'55.05231"N	89°44'18.27285"W	1.192	3.911	4111-SLAB CONC
P6A27	609093.157	3784828.353	30°09'54.87359"N	89°44'18.23497"W	1.137	3.729	4111-SLAB CONC
P6A28	609089.755	3784829.217	30°09'54.83979"N	89°44'18.22567"W	1.001	3.283	4111-SLAB CONC
P6A29	609090.991	3784834.457	30°09'54.85131"N	89°44'18.16578"W	1.177	3.863	4111-SLAB CONC
P6A3	609564.978	3785060.667	30°09'59.51169"N	89°44'15.51383"W	2.833	9.294	411-CONC SLAB-HORZ
P6A30	609098.340	3784866.344	30°09'54.91965"N	89°44'17.80140"W	1.186	3.891	4111-SLAB CONC
P6A31	609124.242	3784896.421	30°09'55.17189"N	89°44'17.45468"W	1.155	3.791	4111-SLAB CONC
P6A32	609157.669	3784907.701	30°09'55.50119"N	89°44'17.32089"W	1.136	3.728	4111-SLAB CONC
P6A33	609159.996	3784908.502	30°09'55.52412"N	89°44'17.31140"W	1.068	3.503	4111-SLAB CONC
P6A34	609163.157	3784899.125	30°09'55.55670"N	89°44'17.41771"W	1.212	3.977	4111-SLAB CONC
P6A35	609149.184	3784893.549	30°09'55.41916"N	89°44'17.48344"W	1.233	4.046	4111-SLAB CONC
P6A36	609134.665	3784888.144	30°09'55.27620"N	89°44'17.54732"W	1.253	4.111	4111-SLAB CONC
P6A37	609126.289	3784882.224	30°09'55.19410"N	89°44'17.61608"W	1.274	4.18	4111-SLAB CONC
P6A38	609115.520	3784869.133	30°09'55.08932"N	89°44'17.76690"W	1.272	4.172	4111-SLAB CONC
P6A39	609108.136	3784860.493	30°09'55.01742"N	89°44'17.86650"W	1.283	4.21	4111-SLAB CONC
P6A4	609553.327	3785067.422	30°09'59.39544"N	89°44'15.43874"W	2.793	9.164	411-CONC SLAB-HORZ
P6A40	609103.978	3784843.281	30°09'54.97863"N	89°44'18.06322"W	1.286	4.219	4111-SLAB CONC
P6A41	609100.818	3784826.895	30°09'54.94962"N	89°44'18.25036"W	1.237	4.059	4111-SLAB CONC
P6A42	608866.653	3784579.365	30°09'52.66593"N	89°44'21.10711"W	5.060	16.6	BLDG ROOF CORNERS-HO
P6A43	608842.726	3784568.003	30°09'52.43067"N	89°44'21.24032"W	5.190	17.026	BLDG ROOF CORNERS-HO
P6A44	608817.668	3784620.465	30°09'52.17542"N	89°44'20.64670"W	5.061	16.604	BLDG ROOF CORNERS-HO
P6A45	608841.939	3784631.948	30°09'52.41407"N	89°44'20.51205"W	5.106	16.751	BLDG ROOF CORNERS-HO
P6A46	609078.893	3785067.845	30°09'54.69939"N	89°44'15.50917"W	0.409	1.341	6111
P6A47	609075.049	3785056.353	30°09'54.66293"N	89°44'15.64070"W	0.386	1.266	6111
P6A48	609070.299	3785045.209	30°09'54.61745"N	89°44'15.76839"W	0.393	1.29	6111
P6A49	609065.635	3785035.182	30°09'54.57267"N	89°44'15.88335"W	0.408	1.339	6111
P6A5	609416.361	3785025.413	30°09'58.04553"N	89°44'15.93899"W	0.376	1.235	6131-SLOPE1

P6A50	609060.160	3785025.296	30°09'54.51984"N	89°44'15.99683"W	0.437	1.434	6111
P6A51	609054.008	3785016.489	30°09'54.46016"N	89°44'16.09813"W	0.419	1.375	6111
P6A52	609048.246	3785007.067	30°09'54.40443"N	89°44'16.20636"W	0.468	1.536	6111
P6A53	609042.205	3784997.257	30°09'54.34598"N	89°44'16.31906"W	0.464	1.521	6111
P6A54	609037.353	3784987.976	30°09'54.29924"N	89°44'16.42555"W	0.490	1.609	6111
P6A55	609034.463	3784979.692	30°09'54.27178"N	89°44'16.52037"W	0.474	1.556	6111
P6A6	609405.900	3785035.860	30°09'57.94054"N	89°44'15.82164"W	2.399	7.871	6131-SLOPE1
P6A7	609399.117	3785044.098	30°09'57.87227"N	89°44'15.72888"W	3.222	10.57	6131-SLOPE1
P6A8	609391.915	3785056.138	30°09'57.79933"N	89°44'15.59287"W	3.146	10.323	6131-SLOPE1
P6A9	609390.863	3785057.467	30°09'57.78872"N	89°44'15.57791"W	2.334	7.657	6131-SLOPE1
PIKE RESET	609582.869	3785134.529	30°09'59.67859"N	89°44'14.66962"W	2.480	8.136	RTK BASE
PIKE RM3	609562.558	3785070.214	30°09'59.48642"N	89°44'15.40546"W	2.788	9.147	CHK

APPENDIX N

Ground Truthing/Calibration of High-Altitude LSU LIDAR: Pump Station & HWM side shots (TG 1 Support)

The data for this item has been uploaded to the ftp site in the folder called “Side shot data for high-altitude LIDAR calibration.” Due to the size of the dataset it is not included in this section.

APPENDIX O

Hydro/Topo Cross-Sections in Jefferson & Orleans Parishes—12 sites: (TG 2/3—Interior Drainage Model)

17st_Canal_Interior_Drainage_1-1

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3664525.93	555921.54	3.98	RR	Book# 060857
3664521.93	555921.6	3.68	RR	Book# 060857
3664506.93	555921.82	0.48	RR	Book# 060857
3664499.93	555921.92	-1.02	WE	Book# 060857
3664329.95	555924.4	0.88	TEF	Book# 060857
3664329.95	555924.4	4.06	TPF	Book# 060857
3664331.95	555924.37	4.06	TPF	Book# 060857
3664331.95	555924.37	-1.02	WE	Book# 060857
3664332.95	555924.36	-7.42	TOE	Book# 060857
3664528.93	555921.5	6.28	TEF	Book# 060857
3664528.93	555921.5	3.92	TPF	Book# 060857
3664526.93	555921.53	3.92	TPF	Book# 060857
3664526.93	555921.53	3.68	TEF	Book# 060857
3664426.94	555922.99	-10.03	SND	Book# 060857
3664436.94	555922.84	-9.63	SND	Book# 060857
3664446.94	555922.69	-9.53	SND	Book# 060857
3664456.94	555922.55	-9.43	SND	Book# 060857
3664466.94	555922.4	-9.13	SND	Book# 060857
3664476.93	555922.26	-8.63	SND	Book# 060857
3664486.93	555922.11	-4.93	SND	Book# 060857
3664496.93	555921.96	-1.23	SND	Book# 060857
3664336.95	555924.3	-7.63	SND	Book# 060857
3664346.95	555924.15	-8.33	SND	Book# 060857
3664356.95	555924.01	-9.73	SND	Book# 060857
3664366.95	555923.86	-10.33	SND	Book# 060857
3664376.95	555923.72	-10.23	SND	Book# 060857
3664386.94	555923.57	-10.33	SND	Book# 060857
3664396.94	555923.42	-9.83	SND	Book# 060857
3664406.94	555923.28	-9.83	SND	Book# 060857
3664416.94	555923.13	-9.83	SND	Book# 060857

Florida_Ave_Canal_Interior_Drainage_19-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3693462.77	541565.64	-4.188	TER	Book# 060857
3693459.23	541554.17	-5.388	NG	Book# 060857
3693454.5	541538.89	-6.088	TBK	Book# 060857
3693451.84	541530.29	-7.688	SLP	Book# 060857
3693448.29	541518.83	-9.888	TOE	Book# 060857
3693446.23	541512.14	-10.488	TOP	Book# 060857
3693445.04	541508.32	-11.688	TPF	Book# 060857
3693444.9	541507.84	-12.488	TPF	Book# 060857
3693444.9	541507.84	-14.198	WES	Book# 060857
3693444.9	541507.84	-19.088	TOE	Book# 060857
3693441.5	541496.85	-19.188	CL	Book# 060857
3693437.36	541483.48	-18.388	TOE	Book# 060857
3693437.36	541483.48	-14.198	WES	Book# 060857
3693437.36	541483.48	-12.388	TPF	Book# 060857
3693437.07	541482.52	-12.388	TPF	Book# 060857
3693436.48	541480.61	-11.088	SLP	Book# 060857
3693435.59	541477.75	-9.788	TOP	Book# 060857
3693432.34	541467.24	-8.688	SLP	Book# 060857
3693426.43	541448.13	-4.188	TBK	Book# 060857

Florida_Ave_Canal_Interior_Drainage_20-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3694913.33	541196.81	-3.106	SLP	Book# 060857
3694909.91	541187.41	-4.306	SLP	Book# 060857
3694903.76	541170.49	-6.006	TBK	Book# 060857
3694901.37	541163.91	-7.906	SLP	Book# 060857
3694896.59	541150.76	-11.106	TOE	Book# 060857
3694896.24	541149.82	-11.446	TPF	Book# 060857
3694895.9	541148.88	-11.466	TPF	Book# 060857
3694895.9	541148.88	-14.156	WES	Book# 060857
3694895.9	541148.88	-20.406	TOE	Book# 060857
3694891.12	541135.72	-20.406	CL	Book# 060857
3694886.34	541122.56	-20.406	TOE	Book# 060857
3694886.34	541122.56	-14.156	WES	Book# 060857
3694886.34	541122.56	-11.666	TPF	Book# 060857
3694886	541121.62	-11.666	TPF	Book# 060857
3694884.29	541116.92	-10.206	SLP	Book# 060857
3694879.16	541102.82	-7.806	SLP	Book# 060857
3694875.75	541093.43	-6.406	SLP	Book# 060857
3694870.62	541079.33	-4.406	TBK	Book# 060857
3694867.21	541069.93	-3.306	NG	Book# 060857

London_Canal_Interior_Drainage_6-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3681331.62	543778.84	12.666	TPF	Book# 060857
3681332.62	543778.84	12.666	TPF	Book# 060857
3681332.62	543778.84	5.906	TEF	Book# 060857
3681341.62	543778.86	5.606	HWL	Book# 060857
3681341.62	543778.86	0.606	SLP	Book# 060857
3681342.62	543778.86	0.106	WES	Book# 060857
3681435.62	543778.98	0.106	WES	Book# 060857
3681436.62	543778.98	4.976	HWL	Book# 060857
3681440.62	543778.98	12.666	TPF	Book# 060857
3681440.62	543778.98	5.906	TEF	Book# 060857
3681441.62	543778.98	12.666	TPF	Book# 060857
3681347.62	543778.86	-2.09	SND	Book# 060857
3681357.62	543778.88	-4.49	SND	Book# 060857
3681367.62	543778.89	-4.39	SND	Book# 060857
3681377.62	543778.9	-4.59	SND	Book# 060857
3681387.62	543778.91	-4.29	SND	Book# 060857
3681397.62	543778.93	-3.69	SND	Book# 060857
3681407.62	543778.94	-3.69	SND	Book# 060857
3681417.62	543778.95	-4.19	SND	Book# 060857
3681427.62	543778.96	-3.99	SND	Book# 060857
3681435.62	543778.98	-1.39	SND	Book# 060857

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NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3680290.58	556091.85	12.757	TPF	Book# 060857
3680291.58	556091.86	12.757	TPF	Book# 060857
3680291.58	556091.86	3.977	TEF	Book# 060857
3680293.58	556091.88	3.777	SLP	Book# 060857
3680308.58	556092.04	1.877	TBK	Book# 060857
3680310.58	556092.06	0.777	TOE	Book# 060857
3680453.57	556093.58	0.177	TOE	Book# 060857
3680454.57	556093.59	1.377	TOP	Book# 060857
3680469.57	556093.75	3.577	TEF	Book# 060857
3680469.57	556093.75	12.757	TPF	Book# 060857
3680470.57	556093.76	12.757	TPF	Book# 060857
3680312.58	556092.08	0.2	WES	Book# 060857
3680313.58	556092.09	0	SND	Book# 060857
3680323.58	556092.2	-6	SND	Book# 060857
3680333.58	556092.31	-10	SND	Book# 060857
3680343.58	556092.41	-12.2	SND	Book# 060857
3680353.58	556092.52	-11.9	SND	Book# 060857
3680363.57	556092.62	-12.7	SND	Book# 060857
3680373.57	556092.73	-11.8	SND	Book# 060857
3680383.57	556092.84	-11.8	SND	Book# 060857
3680393.57	556092.94	-11.8	SND	Book# 060857
3680403.57	556093.05	-11.4	SND	Book# 060857
3680413.57	556093.16	-11.2	SND	Book# 060857
3680423.57	556093.26	-8.6	SND	Book# 060857
3680433.57	556093.37	-3.8	SND	Book# 060857
3680443.57	556093.47	-1.9	SND	Book# 060857
3680453.57	556093.58	0.2	WES	Book# 060857

London_Canal_Interior_Drainage_9-1

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3680040.23	556558.27	11.78	CL	Book# 060857
3680044.94	556559.94	11.78	FSC	Book# 060857
3680054.36	556563.28	8.68	SLP	Book# 060857
3680073.22	556569.96	3.18	FST	Book# 060857
3680077.93	556571.63	2.88	NG	Book# 060857
3680084.53	556573.97	2.68	TBK	Book# 060857
3680089.24	556575.64	-0.02	TOE	Book# 060857
3680323.94	556658.8	1.78	TBK	Book# 060857
3680332.43	556661.8	2.88	NG	Book# 060857
3680351.28	556668.48	3.98	NG	Book# 060857
3680370.13	556675.16	4.88	FST	Book# 060857
3680384.27	556680.17	7.98	SLP	Book# 060857
3680396.52	556684.51	11.88	FSC	Book# 060857
3680400.29	556685.85	11.98	CL	Book# 060857
3680096.78	556578.31	-0.78	SND	Book# 060857
3680106.21	556581.65	-1.58	SND	Book# 060857
3680115.63	556584.99	-2.38	SND	Book# 060857
3680125.06	556588.33	-2.58	SND	Book# 060857
3680134.48	556591.67	-2.58	SND	Book# 060857
3680143.91	556595.01	-2.98	SND	Book# 060857
3680153.34	556598.35	-3.78	SND	Book# 060857
3680162.76	556601.69	-4.38	SND	Book# 060857
3680172.19	556605.03	-4.98	SND	Book# 060857
3680181.61	556608.37	-5.58	SND	Book# 060857
3680191.04	556611.71	-6.78	SND	Book# 060857
3680200.46	556615.05	-7.68	SND	Book# 060857
3680209.89	556618.38	-7.68	SND	Book# 060857
3680219.32	556621.72	-8.38	SND	Book# 060857
3680228.74	556625.06	-7.88	SND	Book# 060857
3680238.17	556628.4	-8.68	SND	Book# 060857
3680247.59	556631.74	-9.28	SND	Book# 060857
3680257.02	556635.08	-9.18	SND	Book# 060857
3680266.45	556638.42	-8.88	SND	Book# 060857
3680275.87	556641.76	-9.38	SND	Book# 060857
3680285.3	556645.1	-8.18	SND	Book# 060857
3680294.72	556648.44	-7.28	SND	Book# 060857
3680304.15	556651.78	-5.18	SND	Book# 060857
3680313.57	556655.12	-1.58	SND	Book# 060857
3680321.12	556657.79	0.22	WES	Book# 060857
3680090.18	556575.97	0.22	WES	Book# 060857

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NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3679210.92	558496.77	12.573	CL	Book# 060857
3679216.73	558498.24	12.173	FSC	Book# 060857
3679231.28	558501.91	7.373	SLP	Book# 060857
3679240.97	558504.36	4.073	FST	Book# 060857
3679265.21	558510.49	2.473	NG	Book# 060857
3679274.9	558512.94	2.173	BSH	Book# 060857
3679276.84	558513.43	2.373	TOP	Book# 060857
3679280.72	558514.41	1.373	TOE	Book# 060857
3679289.45	558516.61	0.873	TBK	Book# 060857
3679479.47	558564.64	1.673	TBK	Book# 060857
3679493.05	558568.07	2.573	TOE	Book# 060857
3679509.53	558572.23	4.273	TOP	Book# 060857
3679531.83	558577.87	5.373	NG	Book# 060857
3679556.06	558584	6.773	NG	Book# 060857
3679575.46	558588.9	7.673	FST	Book# 060857
3679590	558592.57	11.473	FSC	Book# 060857
3679593.88	558593.55	11.573	CL	Book# 060857
3679299.14	558519.06	-2.157	SND	Book# 060857
3679308.84	558521.51	-4.257	SND	Book# 060857
3679318.53	558523.96	-5.957	SND	Book# 060857
3679328.23	558526.41	-8.757	SND	Book# 060857
3679337.92	558528.86	-12.557	SND	Book# 060857
3679347.62	558531.32	-13.757	SND	Book# 060857
3679357.31	558533.77	-14.357	SND	Book# 060857
3679367.01	558536.22	-14.157	SND	Book# 060857
3679376.7	558538.67	-14.157	SND	Book# 060857
3679386.4	558541.12	-14.257	SND	Book# 060857
3679396.09	558543.57	-13.157	SND	Book# 060857
3679405.79	558546.02	-11.757	SND	Book# 060857
3679415.48	558548.47	-9.257	SND	Book# 060857
3679425.18	558550.92	-5.957	SND	Book# 060857
3679434.88	558553.37	-3.257	SND	Book# 060857
3679444.57	558555.82	-1.557	SND	Book# 060857
3679454.27	558558.27	-1.357	SND	Book# 060857
3679463.96	558560.72	-1.057	SND	Book# 060857
3679472.69	558562.92	0.243	WES	Book# 060857

London_Canal_Interior_Drainage_11-1

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3679136.03	559101.55	6.23	TPF	Book# 060857
3679137	559101.78	6.18	TPF	Book# 060857
3679141.87	559102.93	2.98	SLP	Book# 060857
3679147.71	559104.31	0.39	WES	Book# 060857
3679297.58	559139.72	0.39	WES	Book# 060857
3679303.42	559141.1	3.18	SLP	Book# 060857
3679309.26	559142.48	6.48	TPF	Book# 060857
3679310.23	559142.71	6.48	TPF	Book# 060857
3679297.58	559139.72	0.39	WES	Book# 060857
3679155.5	559106.15	-2.81	SND	Book# 060857
3679156.47	559106.38	-11.01	SND	Book# 060857
3679166.2	559108.68	-12.71	SND	Book# 060857
3679175.93	559110.98	-12.61	SND	Book# 060857
3679185.66	559113.28	-12.41	SND	Book# 060857
3679195.4	559115.58	-12.31	SND	Book# 060857
3679205.13	559117.88	-12.11	SND	Book# 060857
3679214.86	559120.18	-12.11	SND	Book# 060857
3679224.59	559122.48	-12.01	SND	Book# 060857
3679234.32	559124.78	-12.01	SND	Book# 060857
3679244.06	559127.08	-12.11	SND	Book# 060857
3679253.79	559129.38	-11.71	SND	Book# 060857
3679263.52	559131.68	-11.31	SND	Book# 060857
3679273.25	559133.98	-10.61	SND	Book# 060857
3679282.98	559136.28	-9.21	SND	Book# 060857
3679292.72	559138.58	-2.21	SND	Book# 060857

Orleans_Canal_Interior_Drainage-_2-1

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3672102.11	557883.54	6.446	TPF	Book# 060857
3672101.12	557883.47	6.446	TPF	Book# 060857
3672097.13	557883.2	3.146	SLP	Book# 060857
3672089.15	557882.64	-0.454	WES	Book# 060857
3671901.6	557869.64	6.346	TPF	Book# 060857
3671902.59	557869.71	6.346	TPF	Book# 060857
3671907.58	557870.06	2.346	SLP	Book# 060857
3671914.56	557870.54	-0.454	WES	Book# 060857
3671920.55	557870.96	-2.844	SND	Book# 060857
3671930.53	557871.65	-4.544	SND	Book# 060857
3671940.5	557872.34	-4.944	SND	Book# 060857
3671950.48	557873.03	-5.044	SND	Book# 060857
3671960.45	557873.72	-5.344	SND	Book# 060857
3671970.43	557874.42	-5.344	SND	Book# 060857
3671980.41	557875.11	-5.444	SND	Book# 060857
3671990.38	557875.8	-5.444	SND	Book# 060857
3672000.36	557876.49	-5.544	SND	Book# 060857
3672010.33	557877.18	-5.544	SND	Book# 060857
3672020.31	557877.87	-5.744	SND	Book# 060857
3672030.29	557878.56	-5.744	SND	Book# 060857
3672040.26	557879.26	-5.944	SND	Book# 060857
3672050.24	557879.95	-6.244	SND	Book# 060857
3672060.22	557880.64	-6.944	SND	Book# 060857
3672070.19	557881.33	-6.544	SND	Book# 060857
3672080.17	557882.02	-6.944	SND	Book# 060857
3672090.14	557882.71	-0.844	SND	Book# 060857

Orleans_Canal_Interior_Drainage-_3-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3671780.92	555506.4	2.533	FST	Book# 060857
3671744.39	555500.57	1.333	BSH	Book# 060857
3671727.6	555497.89	0.633	BSH	Book# 060857
3671714.76	555495.84	-0.267	WES	Book# 060857
3671497.51	555461.17	13.033	PS	Book# 060857
3671500.47	555461.64	13.033	CL	Book# 060857
3671507.39	555462.75	12.533	FSC	Book# 060857
3671517.26	555464.32	9.033	SLP	Book# 060857
3671527.14	555465.9	5.633	SLP	Book# 060857
3671533.06	555466.84	3.833	FST	Book# 060857
3671808.57	555510.81	12.633	CL	Book# 060857
3671805.61	555510.34	12.633	FSC	Book# 060857
3671793.76	555508.45	9.233	SLP	Book# 060857
3671535.04	555467.16	3.733	BSH	Book# 060857
3671538.99	555467.79	2.833	ERK	Book# 060857
3671554.79	555470.31	2.533	TRK	Book# 060857
3671559.72	555471.1	0.633	BSH	Book# 060857
3671562.69	555471.57	-0.267	WES	Book# 060857
3671566.64	555472.2	-1.627	SND	Book# 060857
3671576.51	555473.78	-3.027	SND	Book# 060857
3671586.39	555475.35	-3.427	SND	Book# 060857
3671596.26	555476.93	-3.727	SND	Book# 060857
3671606.14	555478.51	-4.027	SND	Book# 060857
3671616.01	555480.08	-5.027	SND	Book# 060857
3671625.89	555481.66	-5.027	SND	Book# 060857
3671635.76	555483.23	-6.527	SND	Book# 060857
3671645.64	555484.81	-8.027	SND	Book# 060857
3671655.51	555486.38	-10.127	SND	Book# 060857
3671665.39	555487.96	-10.427	SND	Book# 060857
3671675.26	555489.54	-10.127	SND	Book# 060857
3671685.14	555491.11	-9.427	SND	Book# 060857
3671695.01	555492.69	-7.627	SND	Book# 060857
3671704.89	555494.26	-5.727	SND	Book# 060857
3671714.76	555495.84	-3.927	SND	Book# 060857
3671724.64	555497.42	-0.527	SND	Book# 060857

Orleans_Canal_Interior_Drainage-_4-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3671755.63	554569.95	1.781	NG	Book# 060857
3671748.65	554570.49	1.381	TBK	Book# 060857
3671743.66	554570.88	0.281	TRK	Book# 060857
3671740.67	554571.11	-0.419	WES	Book# 060857
3671571.18	554584.3	13.401	TPF	Book# 060857
3671573.18	554584.14	13.381	TPF	Book# 060857
3671573.18	554584.14	7.481	TEF	Book# 060857
3671577.17	554583.83	7.081	LSC	Book# 060857
3671798.5	554566.61	10.081	TEF	Book# 060857
3671795.51	554566.84	9.481	FSC	Book# 060857
3671775.57	554568.39	3.881	SLP	Book# 060857
3671772.58	554568.63	3.281	FST	Book# 060857
3671586.14	554583.13	4.281	SLP	Book# 060857
3671595.11	554582.43	2.781	FST	Book# 060857
3671606.08	554581.58	1.581	NG	Book# 060857
3671613.06	554581.04	1.581	TBK	Book# 060857
3671615.05	554580.88	0.281	TOE	Book# 060857
3671799.49	554566.53	13.281	TPF	Book# 060857
3671798.5	554566.61	13.281	TPF	Book# 060857
3671619.04	554580.57	-0.419	WES	Book# 060857
3671626.02	554580.03	-3.43	SND	Book# 060857
3671635.99	554579.25	-5.53	SND	Book# 060857
3671645.96	554578.48	-9.73	SND	Book# 060857
3671655.93	554577.7	-11.13	SND	Book# 060857
3671665.9	554576.93	-12.03	SND	Book# 060857
3671675.87	554576.15	-12.33	SND	Book# 060857
3671685.84	554575.38	-12.23	SND	Book# 060857
3671695.81	554574.6	-11.93	SND	Book# 060857
3671705.78	554573.82	-10.73	SND	Book# 060857
3671715.75	554573.05	-9.13	SND	Book# 060857
3671725.72	554572.27	-2.63	SND	Book# 060857
3671735.69	554571.5	-1.93	SND	Book# 060857

Orleans_Canal_Interior_Drainage-_5-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3670816.34	545866.33	14.164	TPF	Book# 060857
3670817.34	545866.32	14.154	TPF	Book# 060857
3670817.34	545866.32	0.454	TEF	Book# 060857
3670821.34	545866.26	-0.446	WES	Book# 060857
3670950.33	545864.38	-0.446	WES	Book# 060857
3670957.33	545864.28	2.754	SLP	Book# 060857
3670974.33	545864.03	8.454	FSC	Book# 060857
3670978.33	545863.97	8.654	TEF	Book# 060857
3670979.33	545863.96	14.014	TPF	Book# 060857
3670980.33	545863.94	14.024	TPF	Book# 060857
3670827.34	545866.17	-1.43	SND	Book# 060857
3670837.34	545866.02	-3.33	SND	Book# 060857
3670847.34	545865.88	-3.13	SND	Book# 060857
3670857.34	545865.73	-2.03	SND	Book# 060857
3670867.34	545865.59	-1.23	SND	Book# 060857
3670877.34	545865.44	-2.53	SND	Book# 060857
3670887.34	545865.3	-4.23	SND	Book# 060857
3670897.34	545865.15	-4.43	SND	Book# 060857
3670907.33	545865	-5.03	SND	Book# 060857
3670917.33	545864.86	-4.53	SND	Book# 060857
3670927.33	545864.71	-5.23	SND	Book# 060857
3670937.33	545864.57	-3.13	SND	Book# 060857
3670947.33	545864.42	-1.13	SND	Book# 060857

Peoples&Florida_Canal_Interior_Drainage_12-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3688735.07	543096.45	-2.636	CLR	Book# 060857
3688748.4	543094.33	-2.736	ER	Book# 060857
3688748.9	543094.25	-2.186	CRB	Book# 060857
3688751.86	543093.78	-2.236	TBK	Book# 060857
3688759.76	543092.52	-6.836	SLP	Book# 060857
3688768.65	543091.11	-11.036	TOE	Book# 060857
3688772.6	543090.48	-11.936	TOP	Book# 060857
3688779.51	543089.38	-14.336	WES	Book# 060857
3688784.45	543088.59	-17.336	WB	Book# 060857
3688793.34	543087.18	-20.336	CL	Book# 060857
3688801.24	543085.92	-19.836	WB	Book# 060857
3688807.16	543084.98	-14.336	WES	Book# 060857
3688814.08	543083.88	-12.036	SLP	Book# 060857
3688820	543082.94	-9.736	TC	Book# 060857
3688833.83	543080.74	-7.936	SLP	Book# 060857
3688847.65	543078.54	-3.936	SLP	Book# 060857
3688858.52	543076.81	0.964	TBK	Book# 060857

Peoples_Canal_Interior_Drainage-_13-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3688561.36	546116.13	-2.417	TER	Book# 060857
3688575.35	546116.51	-3.617	TBK	Book# 060857
3688586.35	546116.81	-8.617	TC	Book# 060857
3688594.34	546117.03	-12.037	WES	Book# 060857
3688598.34	546117.14	-13.317	SND	Book# 060857
3688610.34	546117.46	-14.817	CL	Book# 060857
3688618.33	546117.68	-16.037	SND	Book# 060857
3688622.33	546117.79	-12.017	WES	Book# 060857
3688628.33	546117.96	-9.817	TC	Book# 060857
3688634.33	546118.12	-8.817	SLP	Book# 060857
3688648.32	546118.5	-5.317	SLP	Book# 060857
3688653.32	546118.64	-4.517	TBK	Book# 060857
3688664.32	546118.94	-3.717	TER	Book# 060857

Peoples_Canal_Interior_Drainage-_14-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3688551.58	546337.38	-2.786	NG	Book# 060857
3688554.5	546338.07	-3.186	TBK	Book# 060857
3688560.34	546339.45	-5.986	SLP	Book# 060857
3688566.18	546340.83	-8.486	TOE	Book# 060857
3688567.15	546341.06	-8.086	TPF	Book# 060857
3688567.64	546341.17	-8.086	TPF	Book# 060857
3688567.64	546341.17	-12.786	WES	Book# 060857
3688567.64	546341.17	-13.986	TOE	Book# 060857
3688575.91	546343.12	-14.986	WB	Book# 060857
3688587.59	546345.88	-17.786	CL	Book# 060857
3688598.3	546348.41	-17.086	WB	Book# 060857
3688603.16	546349.56	-12.786	WES	Book# 060857
3688604.13	546349.79	-11.986	SLP	Book# 060857
3688611.92	546351.63	-9.186	TPF	Book# 060857
3688616.79	546352.78	-7.686	SLP	Book# 060857
3688624.57	546354.61	-4.786	TBK	Book# 060857

Peoples_Canal_Interior_Drainage-_15-1

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3688506.36	546816.9	-3.319	CLR	Book# 060857
3688516.33	546817.64	-3.919	ER	Book# 060857
3688519.32	546817.86	-3.719	TBK	Book# 060857
3688526.3	546818.38	-5.619	SLP	Book# 060857
3688536.27	546819.12	-8.419	SLP	Book# 060857
3688544.25	546819.71	-10.719	TOE	Book# 060857
3688544.75	546819.74	-10.919	TPF	Book# 060857
3688545.25	546819.78	-10.919	TPF	Book# 060857
3688545.25	546819.78	-12.769	WES	Book# 060857
3688546.25	546819.85	-16.819	TOE	Book# 060857
3688551.23	546820.22	-16.919	CL	Book# 060857
3688556.72	546820.63	-16.719	TOE	Book# 060857
3688556.72	546820.63	-12.769	WES	Book# 060857
3688556.72	546820.63	-11.019	TPF	Book# 060857
3688557.22	546820.67	-11.019	TPF	Book# 060857
3688559.21	546820.82	-10.819	TOE	Book# 060857
3688569.18	546821.55	-8.419	SLP	Book# 060857
3688586.14	546822.81	-4.219	SLP	Book# 060857
3688599.1	546823.77	-1.319	TBK	Book# 060857

Peoples_Canal_Interior_Drainage-_16-1

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3688494.16	546964.83	-3.19	DRV	Book# 060857
3688501.09	546965.83	-3.46	ER	Book# 060857
3688503.07	546966.11	-3.86	TBK	Book# 060857
3688518.9	546968.39	-8.06	SLP	Book# 060857
3688530.78	546970.1	-10.86	TOE	Book# 060857
3688532.76	546970.39	-10.96	TOP	Book# 060857
3688533.75	546970.53	-11.06	TOP	Book# 060857
3688533.75	546970.53	-12.73	WES	Book# 060857
3688533.75	546970.53	-16.76	TOE	Book# 060857
3688533.75	546970.53	-16.96	CL	Book# 060857
3688544.14	546972.03	-16.96	TOE	Book# 060857
3688544.14	546972.03	-12.73	WES	Book# 060857
3688544.14	546972.03	-11.06	TPF	Book# 060857
3688544.64	546972.1	-11.06	TPF	Book# 060857
3688545.63	546972.24	-11.16	TOE	Book# 060857
3688568.39	546975.52	-6.06	SLP	Book# 060857
3688574.33	546976.38	-4.19	SLP	Book# 060857
3688585.22	546977.94	-0.49	SLP	Book# 060857
3688598.09	546979.8	1.21	TBK	Book# 060857

Peoples_Canal_Interior_Drainage-_17-1

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3688368.4	548619.26	0.658	NG	Book# 060857
3688374.39	548618.84	0.458	TBK	Book# 060857
3688382.37	548618.28	-3.042	SLP	Book# 060857
3688393.34	548617.51	-5.742	SLP	Book# 060857
3688405.31	548616.66	-9.942	TOE	Book# 060857
3688407.3	548616.52	-10.342	TPF	Book# 060857
3688408.3	548616.45	-10.342	TPF	Book# 060857
3688408.3	548616.45	-11.792	WES	Book# 060857
3688408.3	548616.45	-14.842	TOE	Book# 060857
3688413.29	548616.1	-14.242	CL	Book# 060857
3688419.27	548615.68	-14.342	TOE	Book# 060857
3688419.27	548615.68	-11.792	WES	Book# 060857
3688419.27	548615.68	-8.242	TPF	Book# 060857
3688420.27	548615.61	-10.242	TPF	Book# 060857
3688424.26	548615.33	-9.342	SLP	Book# 060857
3688438.23	548614.35	-5.342	SLP	Book# 060857
3688448.2	548613.64	-1.042	SLP	Book# 060857
3688460.17	548612.8	4.158	SLP	Book# 060857
3688468.15	548612.24	6.788	SLP	Book# 060857
3688475.14	548611.75	9.888	TBK	Book# 060857

APPENDIX P

Levee/Floodwall Overbank Cross-Sections on London, 17th St, & IHNC Breach Sites: (TG 5b—Physical Model of Breaches & TG 7—Floodwall Performance Analysis)

17st_Canal_4+50

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3664395.55	554308.3	-4.57	SND	Book# 060856
3664385.58	554309.05	-8.67	SND	Book# 060856
3664375.61	554309.8	-13.27	SND	Book# 060856
3664365.64	554310.55	-14.67	SND	Book# 060856
3664355.67	554311.3	-14.97	SND	Book# 060856
3664345.69	554312.04	-16.17	SND	Book# 060856
3664325.75	554313.54	-10.97	SND	Book# 060856
3664315.78	554314.29	-18.07	SND	Book# 060856
3664315.78	554314.29	-18.07	CL	Book# 060856
3664411.67	554304.86	1.632	TOE CONC FLDWALL	17thLONDON.dc
3664434.3	554304.68	4.186	LSC	17thLONDON.dc
3664439.71	554304.3	0.57	SLP	17thLONDON.dc
3664444.77	554302.55	-2.296	E LIMESTONE GRAVEL	17thLONDON.dc
3664451.02	554303.31	-3.947	LST	17thLONDON.dc
3664488.35	554301.1	-5.515	NG	17thLONDON.dc
3664501.78	554300.64	-4.981	TOP	17thLONDON.dc
3664508.51	554299.39	-6.259	TOE	17thLONDON.dc
3664510.12	554299.1	-6.181	E BLDG	17thLONDON.dc
3664553.69	554300.15	-5.746	E BLDG	17thLONDON.dc
3664586.9	554292.71	-5.637	NG	17thLONDON.dc
3664411.28	554306.19	1.567	TOP EDGE OF RIP RAP	17thLONDON.dc
3664616.05	554290.72	-6.003	NG	17thLONDON.dc
3664637.51	554288.81	-5.952	NG	17thLONDON.dc
3664654.64	554288	-5.522	E ROAD	17thLONDON.dc
3664664.44	554287.25	-5.271	CL ROAD	17thLONDON.dc
3664689.27	554285.24	-5.682	ON ROAD	17thLONDON.dc
3664716.66	554283.36	-5.621	ON ROAD	17thLONDON.dc
3664401.38	554306.99	1.351	TOP RIP RAP	17thLONDON.dc
3664398.15	554307.11	-0.78	WES	17thLONDON.dc
3664412.64	554305.82	12.373	TOP CONC FLDWALL	17thLONDON.dc
3664413.38	554305.78	12.376	TOP CONC FLDWALL	17thLONDON.dc
3664414.12	554305.38	5.198	TOE CONC FLDWALL	17thLONDON.dc
3664416.43	554305.3	5.103	ON LEVEE	17thLONDON.dc
3664423.63	554305.14	4.971	C\L LEVEE	17thLONDON.dc

17st_Canal_5+00

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3664401.79	554257.7	-0.97	SND	Book# 060856
3664391.81	554258.44	-3.37	SND	Book# 060856
3664381.84	554259.19	-9.67	SND	Book# 060856
3664371.87	554259.94	-11.77	SND	Book# 060856
3664361.9	554260.69	-15.17	SND	Book# 060856
3664351.93	554261.44	-14.87	SND	Book# 060856
3664341.95	554262.18	-16.17	SND	Book# 060856
3664331.98	554262.93	-17.47	SND	Book# 060856
3664322.01	554263.68	-18.27	SND	Book# 060856
3664322.01	554263.68	-18.27	CL	Book# 060856
3664394.89	554256.64	-0.81	WES	17thLONDON.dc
3664430.38	554254.56	4.665	LSC	17thLONDON.dc
3664708.16	554236.03	-4.872	NG	17thLONDON.dc
3664699.12	554236.74	-5.625	EDGE SIDEWALK	17thLONDON.dc
3664695.33	554237.68	-5.734	EDGE SIDEWALK	17thLONDON.dc
3664670.93	554239.89	-5.852	E ROAD	17thLONDON.dc
3664660.29	554239.8	-5.298	CL ROAD	17thLONDON.dc
3664651.46	554240	-5.583	E ROAD	17thLONDON.dc
3664619.4	554241.14	-4.93	NG	17thLONDON.dc
3664587.51	554242.72	-4.587	NG	17thLONDON.dc
3664555.38	554246.29	-5.76	NG	17thLONDON.dc
3664400.31	554257.04	1.085	TOP RIP RAP	17thLONDON.dc
3664524.92	554248.4	-6.147	NG	17thLONDON.dc
3664499.26	554248.72	-6.451	NG	17thLONDON.dc
3664478.51	554248.75	-5.866	NG	17thLONDON.dc
3664449.92	554253.21	-4.096	LST	17thLONDON.dc
3664442.22	554253.7	-2.474	E LIMESTONE GRAVEL	17thLONDON.dc
3664434.55	554253.85	1.852	SLP	17thLONDON.dc
3664407.86	554256.48	1.505	TOP EDGE OF RIP RAP	17thLONDON.dc
3664408.39	554256.33	1.213	TOE CONC FLDWALL	17thLONDON.dc
3664409.22	554256.33	12.418	TOP CONC FLDWALL	17thLONDON.dc
3664409.99	554256.3	12.425	TOP CONC FLDWALL	17thLONDON.dc
3664410.59	554256.25	5.229	TOE CONC FLDWALL	17thLONDON.dc
3664412.41	554256.1	5.121	ON LEVEE	17thLONDON.dc
3664420.92	554255.43	5.074	C\L LEVEE	17thLONDON.dc

17st_Canal_5+50

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3664388.07	554208.58	-5.57	SND	Book# 060856
3664378.1	554209.33	-9.57	SND	Book# 060856
3664368.13	554210.08	-12.37	SND	Book# 060856
3664358.16	554210.83	-10.67	SND	Book# 060856
3664348.19	554211.58	-12.17	SND	Book# 060856
3664338.21	554212.32	-12.57	SND	Book# 060856
3664328.24	554213.07	-17.07	SND	Book# 060856
3664318.27	554213.82	-17.57	SND	Book# 060856
3664318.27	554213.82	-17.57	CL	Book# 060856
3664428.27	554204.73	4.387	LSC	17thLONDON.dc
3664393.26	554207.53	-0.846	WES	17thLONDON.dc
3664434.23	554204.37	0.712	SLP	17thLONDON.dc
3664440.09	554203.76	-2.625	E LIMESTONE GRAVEL	17thLONDON.dc
3664441.09	554203.85	-2.8	LST	17thLONDON.dc
3664463.77	554201.76	-3.63	NG	17thLONDON.dc
3664487.39	554200.23	-4.128	NG	17thLONDON.dc
3664510.2	554198.7	-4.542	NG	17thLONDON.dc
3664522.39	554197.95	-4.334	TOP	17thLONDON.dc
3664527.49	554197.24	-6.6	TOE	17thLONDON.dc
3664533.58	554197.02	-6.955	TOE	17thLONDON.dc
3664417.29	554205.41	4.969	C\L LEVEE	17thLONDON.dc
3664539.09	554197.51	-4.515	TOP	17thLONDON.dc
3664567.75	554194.85	-3.995	NG	17thLONDON.dc
3664591.82	554192.44	-5.046	NG	17thLONDON.dc
3664608.64	554190.9	-5.129	NG	17thLONDON.dc
3664629.83	554190.38	-5.649	NG	17thLONDON.dc
3664647.16	554188.78	-5.795	E ROAD	17thLONDON.dc
3664656.76	554187.95	-5.459	CL ROAD	17thLONDON.dc
3664667.56	554187.55	-5.864	E ROAD	17thLONDON.dc
3664680.62	554186.61	-5.756	NG	17thLONDON.dc
3664691.78	554185.85	-5.863	EDGE SIDEWALK	17thLONDON.dc
3664409.65	554205.63	4.935	ON LEVEE	17thLONDON.dc
3664695.45	554184.45	-5.811	EDGE SIDEWALK	17thLONDON.dc
3664407.33	554205.9	5.079	TOE CONC FLDWALL	17thLONDON.dc
3664406.5	554205.41	12.329	TOP CONC FLDWALL	17thLONDON.dc
3664405.82	554205.56	12.318	TOP CONC FLDWALL	17thLONDON.dc
3664404.99	554205.65	2.072	TOE CONC FLDWALL	17thLONDON.dc
3664404.92	554205.58	2.017	TOP EDGE OF RIP RAP	17thLONDON.dc
3664395.24	554207.78	1.262	TOP RIP RAP	17thLONDON.dc

17st_Canal_14+00

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3664334.46	553360.22	-1.37	SND	Book# 060856
3664324.48	553360.96	-4.87	SND	Book# 060856
3664314.51	553361.71	-12.57	SND	Book# 060856
3664304.54	553362.46	-14.57	SND	Book# 060856
3664294.57	553363.21	-12.77	SND	Book# 060856
3664284.6	553363.96	-10.47	SND	Book# 060856
3664274.62	553364.7	-16.17	SND	Book# 060856
3664264.65	553365.45	-15.17	SND	Book# 060856
3664264.65	553365.45	-15.17	CL	Book# 060856
3664365.99	553355.82	2.425	FL	17thLONDON.dc
3664332.18	553357.78	-0.716	WES	17thLONDON.dc
3664375.99	553355.13	-0.456	SLP	17thLONDON.dc
3664384.04	553355	-2.6	LST	17thLONDON.dc
3664410.26	553353.09	-3.263	NG	17thLONDON.dc
3664431.85	553351.11	-3.703	E CONC DRIVEWAY	17thLONDON.dc
3664459.28	553349.22	-3.904	ON CONC DRIVEWAY	17thLONDON.dc
3664476.87	553347.84	-4.101	E BLDG	17thLONDON.dc
3664500.9	553346.16	-4.463	E BLDG	17thLONDON.dc
3664510.79	553345.13	-4.922	ON CONC DRIVEWAY	17thLONDON.dc
3664540.19	553343.54	-5.434	E CONC DRIVEWAY	17thLONDON.dc
3664362.6	553355.64	3.136	LSC	17thLONDON.dc
3664565.89	553340.86	-6.016	EDGE SIDEWALK	17thLONDON.dc
3664569.86	553340.59	-6.09	EDGE SIDEWALK	17thLONDON.dc
3664587.1	553339.32	-6.676	NG	17thLONDON.dc
3664598.12	553338.48	-7.052	E ROAD	17thLONDON.dc
3664606.42	553337.3	-6.773	CL ROAD	17thLONDON.dc
3664616.11	553336.71	-7.336	E ROAD	17thLONDON.dc
3664634.89	553335.2	-7.48	NG	17thLONDON.dc
3664355.24	553356.5	3.717	C\L LEVEE	17thLONDON.dc
3664349.18	553356.85	4.152	TOE CONC FLDWALL	17thLONDON.dc
3664348.77	553357.14	12.409	TOP CONC FLDWALL	17thLONDON.dc
3664348.05	553357.13	12.36	TOP CONC FLDWALL	17thLONDON.dc
3664347.24	553357.73	1.841	TOE CONC FLDWALL	17thLONDON.dc
3664347.34	553357.78	1.823	TOP EDGE OF RIP RAP	17thLONDON.dc
3664336.86	553358.19	1.388	TOP RIP RAP	17thLONDON.dc

17st_Canal_14+50

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3664337.66	553310.22	-3.97	SND	Book# 060856
3664327.68	553310.96	-6.17	SND	Book# 060856
3664317.71	553311.71	-10.57	SND	Book# 060856
3664307.74	553312.46	-15.37	SND	Book# 060856
3664297.77	553313.21	-16.37	SND	Book# 060856
3664287.8	553313.96	-16.27	SND	Book# 060856
3664277.82	553314.7	-18.47	SND	Book# 060856
3664267.85	553315.45	-17.67	SND	Book# 060856
3664267.85	553315.45	-17.67	CL	Book# 060856
3664364.37	553304.09	1.763	FL	17thLONDON.dc
3664345.18	553307.3	12.363	TOP CONC FLDWALL	17thLONDON.dc
3664372.83	553304.65	-0.949	SLP	17thLONDON.dc
3664382.75	553303.25	-3.405	LST	17thLONDON.dc
3664405.05	553301.34	-3.974	NG	17thLONDON.dc
3664428.16	553300.41	-4.449	E BLDG	17thLONDON.dc
3664537.79	553291.4	-4.26	E BLDG	17thLONDON.dc
3664563.1	553290.39	-5.617	EDGE SIDEWALK	17thLONDON.dc
3664567	553290.13	-5.679	EDGE SIDEWALK	17thLONDON.dc
3664585.37	553286.89	-6.568	NG	17thLONDON.dc
3664596.03	553287.28	-6.788	E ROAD	17thLONDON.dc
3664358.44	553305.94	3.118	LSC	17thLONDON.dc
3664602.54	553285.33	-6.624	CL ROAD	17thLONDON.dc
3664352.98	553306.32	3.696	C\L LEVEE	17thLONDON.dc
3664346.04	553307.04	4.389	TOE CONC FLDWALL	17thLONDON.dc
3664345.33	553307.32	12.389	TOP CONC FLDWALL	17thLONDON.dc
3664344.67	553307.28	12.414	TOP CONC FLDWALL	17thLONDON.dc
3664337.41	553308.32	-0.782	WES	17thLONDON.dc
3664343.86	553307.2	-0.89	TOE CONC FLDWALL	17thLONDON.dc
3664344.6	553307.38	12.387	TOP CONC FLDWALL	17thLONDON.dc

17st_Canal_15+00

NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3664362.79	553258.57	0.03	WES	Book# 060856
3664360.8	553258.72	-0.87	SND	Book# 060856
3664350.83	553259.47	-1.27	SND	Book# 060856
3664340.86	553260.22	-5.07	SND	Book# 060856
3664330.88	553260.96	-8.97	SND	Book# 060856
3664320.91	553261.71	-10.57	SND	Book# 060856
3664310.94	553262.46	-12.67	SND	Book# 060856
3664300.97	553263.21	-18.27	SND	Book# 060856
3664291	553263.96	-18.47	SND	Book# 060856
3664281.02	553264.7	-18.17	SND	Book# 060856
3664271.05	553265.45	-18.07	CL	Book# 060856
3664361.23	553255.05	1.888	FL	17thLONDON.dc
3664388.93	553255.95	-3.66	NG	17thLONDON.dc
3664394.66	553253.89	-3.756	E CONC SLAB	17thLONDON.dc
3664403.94	553252.84	-3.543	E CONC SLAB	17thLONDON.dc
3664409.93	553251.1	-4.042	NG	17thLONDON.dc
3664423.38	553250.52	-3.58	E BLDG	17thLONDON.dc
3664535.2	553242.77	-4.571	E BLDG	17thLONDON.dc
3664547.45	553242.69	-4.939	NG	17thLONDON.dc
3664560.53	553240.83	-5.751	EDGE SIDEWALK	17thLONDON.dc
3664563.59	553240.3	-5.754	EDGE SIDEWALK	17thLONDON.dc
3664592.28	553238.23	-6.685	E ROAD	17thLONDON.dc
3664354.57	553256.04	3.188	LSC	17thLONDON.dc
3664599.93	553237.82	-6.571	CL ROAD	17thLONDON.dc
3664609.91	553237.32	-7.132	E ROAD	17thLONDON.dc
3664348.69	553256.53	3.869	C\L LEVEE	17thLONDON.dc
3664342.65	553256.95	4.726	TOE CONC FLDWALL	17thLONDON.dc
3664340.44	553257.65	-0.651	TOE CONC FLDWALL	17thLONDON.dc
3664341.03	553257.2	12.461	TOE CONC FLDWALL	17thLONDON.dc
3664341.86	553257.23	12.475	TOE CONC FLDWALL	17thLONDON.dc
3664370.3	553255.08	-1.261	SLP	17thLONDON.dc
3664379.49	553254.79	-3.581	LST	17thLONDON.dc

IHNC_East_ 0+00

NAD83(LA-South-USft) NAVD88(2004.65)

Easting	Northing	Elevation (ft)	Description	Reference
3696285.94	540620.99	-1.91	SND	Book# 060858
3696266.56	540625.9	-5.71	SND	Book# 060858
3696247.17	540630.81	-15.31	SND	Book# 060858
3696227.78	540635.71	-20.61	SND	Book# 060858
3696208.39	540640.62	-23.31	SND	Book# 060858
3696189	540645.53	-23.61	SND	Book# 060858
3696169.61	540650.43	-25.81	SND	Book# 060858
3696150.22	540655.34	-27.91	SND	Book# 060858
3696130.83	540660.25	-28.31	SND	Book# 060858
3696111.45	540665.15	-27.81	SND	Book# 060858
3696092.06	540670.06	-29.31	SND	Book# 060858
3696072.67	540674.97	-33.31	SND	Book# 060858
3696053.28	540679.87	-34.71	SND	Book# 060858
3696033.89	540684.78	-37.61	SND	Book# 060858
3696014.5	540689.69	-38.51	SND	Book# 060858
3695995.11	540694.59	-39.71	SND	Book# 060858
3695975.72	540699.5	-38.51	SND	Book# 060858
3695975.72	540699.5	-38.51	CL	Book# 060858
3696297.59	540618.04	-0.687	WES	IHNCEAST.dc
3696365.81	540602.86	5.074	TOP	IHNCEAST.dc
3696368.24	540600.82	2.895	TOE	IHNCEAST.dc
3696371.06	540600.63	2.582	TOE	IHNCEAST.dc
3696373.23	540600.03	4.251	TOP	IHNCEAST.dc
3696384.48	540596.72	1.842	TOE	IHNCEAST.dc
3696399.09	540593.03	0.601	E ROAD	IHNCEAST.dc
3696424.74	540585.06	0.192	ON ROAD	IHNCEAST.dc
3696471.53	540574.15	-0.753	ON ROAD	IHNCEAST.dc
3696520.23	540561.63	-1.338	ON ROAD	IHNCEAST.dc
3696566.48	540549.86	-1.539	ON ROAD	IHNCEAST.dc
3696307.35	540616.01	0.7	TOE	IHNCEAST.dc
3696618.07	540537.04	-1.93	ON ROAD	IHNCEAST.dc
3696668.27	540524.48	-2.482	ON ROAD	IHNCEAST.dc
3696729.95	540508.83	-3.333	ON ROAD	IHNCEAST.dc
3696775.74	540496.44	-4.737	ON ROAD	IHNCEAST.dc
3696820.81	540484.56	-5.547	ON ROAD	IHNCEAST.dc
3696314.74	540613.89	2.042	TBK	IHNCEAST.dc
3696337.61	540608.41	2.358	TOE	IHNCEAST.dc
3696357	540603.19	4.734	TOP	IHNCEAST.dc
3696362.3	540601.74	5.202	TOE CONC FLDWALL	IHNCEAST.dc
3696362.82	540601.98	12.616	TOP EDGE CONC FLDWAL	IHNCEAST.dc
3696363.6	540602.19	12.638	TOP EDGE CONC FLDWAL	IHNCEAST.dc
3696364.03	540602.43	5.34	TOE CONC FLDWALL	IHNCEAST.dc

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NAD83(LA-South-USft) NAVD88(2004.65)

Easting	Northing	Elevation (ft)	Description	Reference
3696273.77	540572.61	-1.41	SND	Book# 060858
3696254.38	540577.52	-2.71	SND	Book# 060858
3696234.99	540582.42	-9.31	SND	Book# 060858
3696215.6	540587.33	-19.51	SND	Book# 060858
3696196.21	540592.24	-25.81	SND	Book# 060858
3696176.82	540597.14	-27.71	SND	Book# 060858
3696157.43	540602.05	-29.61	SND	Book# 060858
3696138.04	540606.96	-31.31	SND	Book# 060858
3696118.66	540611.86	-31.71	SND	Book# 060858
3696099.27	540616.77	-32.41	SND	Book# 060858
3696079.88	540621.68	-32.71	SND	Book# 060858
3696060.49	540626.58	-34.01	SND	Book# 060858
3696041.1	540631.49	-34.81	SND	Book# 060858
3696021.71	540636.4	-36.41	SND	Book# 060858
3696002.32	540641.3	-39.11	SND	Book# 060858
3695982.93	540646.21	-40.21	SND	Book# 060858
3695963.55	540651.12	-40.61	SND	Book# 060858
3696834.47	540430.84	-4.969	NG-JUNK PILE	IHNCEAST.dc
3696694.41	540466.11	-5.854	TOE	IHNCEAST.dc
3696678.9	540470.01	-5.818	TOE	IHNCEAST.dc
3696653.85	540477.87	-3.949	SLP	IHNCEAST.dc
3696626.44	540483.44	-2.893	SLP	IHNCEAST.dc
3696614.1	540486.15	-1.111	TOP	IHNCEAST.dc
3696582.29	540494.87	-1.102	NG	IHNCEAST.dc
3696535.65	540506.16	-0.761	NG	IHNCEAST.dc
3696492.38	540516.5	0.002	NG	IHNCEAST.dc
3696453.62	540527.14	0.896	E LEVEE RAMP	IHNCEAST.dc
3696429.73	540533	1.656	C\L LEVEE RAMP	IHNCEAST.dc
3696796.19	540440.31	-5.002	NG-JUNK PILE	IHNCEAST.dc
3696409.97	540538.27	2.003	E LEVEE RAMP	IHNCEAST.dc
3696405.81	540538.91	2.059	TOE	IHNCEAST.dc
3696402.32	540539.2	3.313	TOP	IHNCEAST.dc
3696401.3	540540.46	3.252	EDGE CONC SLAB	IHNCEAST.dc
3696394.91	540541.79	3.172	EDGE CONC SLAB	IHNCEAST.dc
3696393.8	540541.98	3.601	TOP	IHNCEAST.dc
3696388.33	540543.79	3.908	TOE	IHNCEAST.dc
3696382.74	540544.76	5.572	TOP	IHNCEAST.dc
3696380.63	540545.18	3.439	TOE	IHNCEAST.dc
3696377.71	540546.37	3.928	TOE FLDWALL	IHNCEAST.dc
3696758.62	540451.07	-4.862	NG-JUNK PILE	IHNCEAST.dc
3696377.83	540546.58	5.183	TOP	IHNCEAST.dc
3696376.33	540546.79	5.333	TOE CONC FLDWALL	IHNCEAST.dc
3696375.81	540546.84	12.561	TOP EDGE CONC FLDWAL	IHNCEAST.dc
3696374.68	540547.01	12.589	TOP EDGE CONC FLDWAL	IHNCEAST.dc
3696374.47	540547.28	6.551	TOE CONC FLDWALL	IHNCEAST.dc
3696370.52	540548.5	6.31	TOP	IHNCEAST.dc
3696364.8	540550.06	5.298	TOE	IHNCEAST.dc

3696341.16	540555.74	4.551	NG	IHNCEAST.dc
3696298.04	540566.29	3.371	TBK	IHNCEAST.dc
3696296.64	540566.97	1.918	TOP EDGE OF RIP RAP	IHNCEAST.dc
3696734.98	540453.92	-5.396	NG-JUNK PILE	IHNCEAST.dc
3696284.54	540570.29	-0.58	EDGE RIP RAP	IHNCEAST.dc
3696282.74	540570.59	-0.75	WES	IHNCEAST.dc
3696732.78	540457.03	-5.353	E ROAD	IHNCEAST.dc
3696722.95	540458.75	-5.315	CL ROAD	IHNCEAST.dc
3696717.19	540460.77	-5.263	E ROAD	IHNCEAST.dc
3696713.81	540461.75	-5.449	TOE	IHNCEAST.dc
3696707.3	540463.53	-4.072	TOP	IHNCEAST.dc

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NAD83(LA-South-USft) NAVD88(2004.65)

Easting	Northing	Elevation (ft)	Description	Reference
3695205.28	536592.68	-1.61	SND	Book# 060858
3695186.49	536599.52	-3.41	SND	Book# 060858
3695167.69	536606.36	-5.51	SND	Book# 060858
3695148.9	536613.2	-6.81	SND	Book# 060858
3695130.1	536620.04	-5.11	SND	Book# 060858
3695111.31	536626.88	-8.11	SND	Book# 060858
3695092.52	536633.72	-9.41	SND	Book# 060858
3695073.72	536640.56	-9.31	SND	Book# 060858
3695054.93	536647.4	-14.11	SND	Book# 060858
3695038.95	536653.22	-10.21	SND	Book# 060858
3695017.34	536661.08	-20.61	SND	Book# 060858
3694998.55	536667.92	-22.31	SND	Book# 060858
3694979.75	536674.76	-24.21	SND	Book# 060858
3694960.96	536681.6	-25.91	SND	Book# 060858
3694942.17	536688.45	-27.21	SND	Book# 060858
3694923.37	536695.29	-30.31	SND	Book# 060858
3694904.58	536702.13	-32.41	SND	Book# 060858
3694885.78	536708.97	-32.91	SND	Book# 060858
3694866.99	536715.81	-32.51	SND	Book# 060858
3694866.99	536715.81	-32.51	CL	Book# 060858
3695379.06	536529.11	0.077	EDGE OF BLDG	IHNCEAST.dc
3695605.21	536447.32	-2.6	E ROAD	IHNCEAST.dc
3695611.19	536445.62	-2.353	TOE	IHNCEAST.dc
3695613.7	536445.33	-1.718	FL / TOP	IHNCEAST.dc
3695615.88	536444.42	-1.664	E CONC SLAB	IHNCEAST.dc
3695637.87	536434.58	-1.873	NG	IHNCEAST.dc
3695358.43	536536.9	-0.178	ON ASPHALT	IHNCEAST.dc
3695338.01	536545.27	-0.138	ON ASPHALT	IHNCEAST.dc
3695316.52	536552.27	0.324	E ASPHALT	IHNCEAST.dc
3695315.7	536552.42	0.677	FL	IHNCEAST.dc
3695303.01	536557.52	0.608	LST	IHNCEAST.dc
3695471.57	536495.48	-0.432	EDGE OF BLDG	IHNCEAST.dc
3695291.92	536560.61	4.038	SLP	IHNCEAST.dc
3695283.89	536563.67	7.073	LSC	IHNCEAST.dc
3695277.43	536566.3	7.486	TOE CONC FLDWALL	IHNCEAST.dc
3695275.99	536566.87	13.402	TOP EDGE CONC FLDWAL	IHNCEAST.dc
3695275.76	536566.93	13.399	TOP EDGE CONC FLDWAL	IHNCEAST.dc
3695275.33	536566.81	7.089	TOE CONC FLDWALL	IHNCEAST.dc
3695272.24	536567.71	6.562	FSC	IHNCEAST.dc
3695264.23	536570.58	4.417	SLP	IHNCEAST.dc
3695253.19	536576.09	2.408	FST	IHNCEAST.dc
3695260.25	536572.34	3.474	EDGE RIP RAP	IHNCEAST.dc
3695496.8	536486.69	-0.655	NG	IHNCEAST.dc
3695243.26	536578.11	1.831	ON RIP RAP	IHNCEAST.dc
3695225.9	536584.67	2.02	TBK	IHNCEAST.dc
3695219.91	536587.4	0.601	ON RIP RAP	IHNCEAST.dc
3695212.7	536589.74	0.362	ON RIP RAP	IHNCEAST.dc

3695208.94	536592.41	-0.439	WES	IHNCEAST.dc
3695518.73	536479.14	-1.037	FL	IHNCEAST.dc
3695521.38	536476.96	-1.116	TOP	IHNCEAST.dc
3695553.77	536465.26	-3.49	TOE	IHNCEAST.dc
3695573.47	536458.24	-3.351	NG	IHNCEAST.dc
3695588.28	536453.15	-2.903	E ROAD	IHNCEAST.dc
3695597.45	536450.37	-2.684	CL ROAD	IHNCEAST.dc

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NAD83(LA-South-USft) NAVD88(2004.65)

Easting	Northing	Elevation (ft)	Description	Reference
3695030.86	536406.14	-2.01	SND	Book# 060858
3695012.06	536412.98	-7.01	SND	Book# 060858
3694993.27	536419.82	-11.71	SND	Book# 060858
3694974.47	536426.66	-16.81	SND	Book# 060858
3694955.68	536433.5	-19.01	SND	Book# 060858
3694936.89	536440.34	-21.81	SND	Book# 060858
3694918.09	536447.18	-24.71	SND	Book# 060858
3694899.3	536454.02	-26.71	SND	Book# 060858
3694880.5	536460.86	-27.61	SND	Book# 060858
3694861.71	536467.7	-29.41	SND	Book# 060858
3694842.92	536474.54	-33.21	SND	Book# 060858
3694824.12	536481.38	-35.21	SND	Book# 060858
3694805.33	536488.22	-33.71	SND	Book# 060858
3694786.53	536495.06	-31.31	SND	Book# 060858
3694824.12	536481.38	-35.21	CL	Book# 060858
3695387.94	536276.14	-2.602	ON ASPHALT	IHNCEAST.dc
3695200.94	536344.15	-1.915	NG	IHNCEAST.dc
3695153.02	536361.78	-1.699	NG	IHNCEAST.dc
3695124.49	536370.54	-1.05	FST	IHNCEAST.dc
3695118.57	536374.84	0.086	SLP	IHNCEAST.dc
3695099.85	536381.12	6.438	SLP	IHNCEAST.dc
3695096.06	536382.54	7.416	FSC	IHNCEAST.dc
3695091.34	536384.16	7.639	TOE CONC FLDWALL	IHNCEAST.dc
3695089.7	536384.8	13.271	TOP CONC FLDWALL	IHNCEAST.dc
3695089.47	536384.94	13.333	TOP CONC FLDWALL	IHNCEAST.dc
3695088.99	536384.56	6.796	TOE CONC FLDWALL	IHNCEAST.dc
3695362.99	536285.82	-2.795	ON ASPHALT	IHNCEAST.dc
3695086.56	536385.92	6.341	FSC	IHNCEAST.dc
3695082.9	536386.56	5.277	SLP	IHNCEAST.dc
3695075.35	536389.94	3.006	FST	IHNCEAST.dc
3695065.91	536393.08	2.809	NG	IHNCEAST.dc
3695058.76	536396.09	2.6	TOE	IHNCEAST.dc
3695055.03	536398.09	3.064	TOP	IHNCEAST.dc
3695045.72	536400.58	3.378	TBK	IHNCEAST.dc
3695039.41	536402.38	1.357	EDGE RIP RAP	IHNCEAST.dc
3695035.14	536404.59	1.965	ON RIP RAP	IHNCEAST.dc
3695030.21	536405.06	-0.571	WES	IHNCEAST.dc
3695328.47	536297.66	-3.101	E ROAD	IHNCEAST.dc
3695328.17	536297.91	-3.043	TOE OF CURB	IHNCEAST.dc
3695328.33	536298.27	-2.722	TOE OF CURB	IHNCEAST.dc
3695322.96	536300.01	-2.742	TOE OF CURB	IHNCEAST.dc
3695322.29	536300.64	-2.487	NG	IHNCEAST.dc
3695294.05	536311.01	-2.064	NG	IHNCEAST.dc
3695247.41	536327.54	-1.953	NG	IHNCEAST.dc

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NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3695013.64	536359.05	-1.41	SND	Book# 060858
3694994.84	536365.89	-7.61	SND	Book# 060858
3694976.05	536372.73	-11.31	SND	Book# 060858
3694957.25	536379.57	-17.11	SND	Book# 060858
3694938.46	536386.41	-19.51	SND	Book# 060858
3694919.67	536393.25	-21.61	SND	Book# 060858
3694900.87	536400.09	-24.41	SND	Book# 060858
3694882.08	536406.93	-26.41	SND	Book# 060858
3694863.28	536413.77	-27.81	SND	Book# 060858
3694844.49	536420.61	-30.21	SND	Book# 060858
3694825.7	536427.45	-33.11	SND	Book# 060858
3694806.9	536434.29	-35.61	SND	Book# 060858
3694806.9	536434.29	-35.61	CL	Book# 060858
3695014.89	536359.82	-0.669	WES	IHNCEAST.dc
3695066.75	536339.39	6.666	FSC	IHNCEAST.dc
3695068.71	536338.27	6.912	TOE CONC FLDWALL	IHNCEAST.dc
3695069.01	536338.05	13.323	TOP CONC FLDWALL	IHNCEAST.dc
3695069.34	536337.93	13.296	TOP CONC FLDWALL	IHNCEAST.dc
3695071.23	536338.25	7.559	TOE CONC FLDWALL	IHNCEAST.dc
3695076.09	536336.73	7.232	LSC	IHNCEAST.dc
3695082.7	536333.22	5.453	SLP	IHNCEAST.dc
3695094.82	536329.27	1.114	SLP	IHNCEAST.dc
3695102.11	536328.62	-0.535	TOE	IHNCEAST.dc
3695119.2	536320.06	-2.23	NG	IHNCEAST.dc
3695015.11	536358.78	0.447	ON RIP RAP	IHNCEAST.dc
3695148.26	536311.2	-2.356	NG	IHNCEAST.dc
3695183.94	536297.15	-2.789	NG	IHNCEAST.dc
3695227.17	536282.05	-2.34	E CONC DRIVEWAY	IHNCEAST.dc
3695235.61	536278.56	-2.312	E CONC DRIVEWAY	IHNCEAST.dc
3695236.31	536278.34	-2.535	E CONC DRIVEWAY	IHNCEAST.dc
3695249.27	536273.27	-2.388	FL	IHNCEAST.dc
3695262.8	536268.34	-2.763	FL	IHNCEAST.dc
3695276.6	536262.27	-2.983	NG	IHNCEAST.dc
3695295.21	536253.32	-6.825	FL	IHNCEAST.dc
3695020.6	536357.26	0.64	EDGE RIP RAP	IHNCEAST.dc
3695023.08	536355.52	0.888	TOE	IHNCEAST.dc
3695036.13	536352.42	3.45	TOP	IHNCEAST.dc
3695038.94	536351.38	3.546	TOP	IHNCEAST.dc
3695042.73	536349.52	2.883	TOE	IHNCEAST.dc
3695054.27	536343.7	3.069	FST	IHNCEAST.dc
3695062.35	536341.28	5.478	SLP	IHNCEAST.dc

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NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3680423.96	555623.39	-13.57	SND	Book# 060856
3680413.98	555622.75	-13.87	SND	Book# 060856
3680404.00	555622.11	-13.77	SND	Book# 060856
3680394.02	555621.46	-13.97	SND	Book# 060856
3680384.04	555620.82	-12.77	SND	Book# 060856
3680374.06	555620.18	-10.47	SND	Book# 060856
3680364.08	555619.54	-5.47	SND	Book# 060856
3680354.10	555618.90	-2.77	SND	Book# 060856
3680423.96	555623.39	-13.57	CL	Book# 060856
3680350.16	555618.57	-0.95	WES	17thLONDON.dc
3680210.07	555609.64	11.54	LSC	17thLONDON.dc
3680204.67	555609.40	7.78	SLP	17thLONDON.dc
3680199.34	555609.24	6.11	SLP	17thLONDON.dc
3680180.70	555607.91	0.70	LST	17thLONDON.dc
3680165.98	555606.89	-0.01	NG	17thLONDON.dc
3680159.36	555605.90	-0.76	TOP	17thLONDON.dc
3680148.91	555605.83	-2.13	TOE	17thLONDON.dc
3680124.15	555603.95	-2.97	NG	17thLONDON.dc
3680117.33	555603.30	-3.12	TOP OF CURB	17thLONDON.dc
3680116.59	555603.33	-3.45	TOE OF CURB	17thLONDON.dc
3680339.83	555618.45	2.69	TBK	17thLONDON.dc
3680115.48	555603.46	-3.43	E ROAD	17thLONDON.dc
3680098.58	555602.59	-2.92	CL ROAD	17thLONDON.dc
3680082.95	555601.32	-3.51	E ROAD	17thLONDON.dc
3680080.60	555601.21	-3.57	TOE OF CURB	17thLONDON.dc
3680079.70	555601.22	-3.21	TOP OF CURB	17thLONDON.dc
3680076.44	555601.18	-3.41	EDGE SIDEWALK	17thLONDON.dc
3680071.67	555601.10	-3.50	EDGE SIDEWALK	17thLONDON.dc
3680048.85	555600.16	-2.87	NG	17thLONDON.dc
3680024.40	555596.72	-2.36	NG	17thLONDON.dc
3679974.69	555594.16	-2.65	NG	17thLONDON.dc
3680324.06	555617.54	3.02	NG	17thLONDON.dc
3680298.84	555615.25	4.23	NG	17thLONDON.dc
3680275.46	555613.92	4.78	NG	17thLONDON.dc
3680253.85	555612.80	5.22	FST	17thLONDON.dc
3680243.05	555611.83	11.93	FSC	17thLONDON.dc
3680227.28	555610.61	12.08	C\L LEVEE	17thLONDON.dc
3680224.17	555610.82	12.12	ON LEVEE	17thLONDON.dc

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NAD83(LA-South-USft) NAVD88(2004.65)

Easting	Northing	Elevation (ft)	Description	Reference
3680437.15	555574.13	-13.17	SND	Book# 060856
3680427.17	555573.49	-13.57	SND	Book# 060856
3680417.19	555572.85	-13.67	SND	Book# 060856
3680407.21	555572.21	-14.27	SND	Book# 060856
3680397.23	555571.56	-13.47	SND	Book# 060856
3680387.25	555570.92	-12.67	SND	Book# 060856
3680377.27	555570.28	-9.47	SND	Book# 060856
3680367.29	555569.64	-5.37	SND	Book# 060856
3680357.31	555569	-1.37	SND	Book# 060856
3680437.15	555574.13	-13.17	CL	Book# 060856
3679977.38	555544.04	-2.779	NG	17thLONDON.dc
3680102.7	555552.53	-2.589	CL ROAD	17thLONDON.dc
3680120.69	555553.66	-2.346	TOE OF CURB	17thLONDON.dc
3680121.72	555553.66	-1.931	TOP OF CURB	17thLONDON.dc
3680127.34	555554.22	-2.064	NG	17thLONDON.dc
3680152.67	555555.51	-1.849	NG	17thLONDON.dc
3680160.48	555555.61	-1.531	TOE	17thLONDON.dc
3680174.17	555557.28	-0.227	TOP	17thLONDON.dc
3680188.58	555558.09	0.73	LST	17thLONDON.dc
3680194.83	555558.32	1.798	SLP	17thLONDON.dc
3680203.1	555559.88	2.857	SLP	17thLONDON.dc
3680002.34	555546.53	-2.663	NG	17thLONDON.dc
3680227.28	555560.83	4.781	SLP	17thLONDON.dc
3680247.64	555562.12	7.226	SLP	17thLONDON.dc
3680256.06	555563.3	10.642	LSC	17thLONDON.dc
3680275.16	555563.83	10.818	C\L LEVEE	17thLONDON.dc
3680278.46	555564.03	10.611	ON LEVEE	17thLONDON.dc
3680292.73	555564.6	10.398	FSC	17thLONDON.dc
3680302.61	555566.58	7.769	SLP	17thLONDON.dc
3680310.66	555568.35	5.013	SLP	17thLONDON.dc
3680316.62	555566.25	4.262	FST	17thLONDON.dc
3680327.18	555567.29	3.314	NG	17thLONDON.dc
3680027.68	555548.29	-2.817	NG	17thLONDON.dc
3680346.78	555568.55	2.793	NG	17thLONDON.dc
3680351.97	555568.51	0.51	SLP	17thLONDON.dc
3680357.77	555568.88	-0.87	WES	17thLONDON.dc
3680052.92	555549.95	-2.755	NG	17thLONDON.dc
3680075.67	555550.82	-3.222	EDGE SIDEWALK	17thLONDON.dc
3680080.55	555551.52	-3.085	EDGE SIDEWALK	17thLONDON.dc
3680084.12	555551.51	-2.911	TOP OF CURB	17thLONDON.dc
3680084.96	555551.43	-3.26	TOE OF CURB	17thLONDON.dc
3680086.69	555551.39	-3.289	E ROAD	17thLONDON.dc

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NAD83(LA-South-USft) NAVD88(2004.65)

Easting	Northing	Elevation (ft)	Description	Reference
3680440.37	555524.24	-13.16	SND	Book# 060856
3680430.39	555523.6	-13.36	SND	Book# 060856
3680420.41	555522.96	-13.56	SND	Book# 060856
3680410.43	555522.31	-13.86	SND	Book# 060856
3680400.45	555521.67	-13.76	SND	Book# 060856
3680390.47	555521.03	-14.16	SND	Book# 060856
3680380.49	555520.39	-10.76	SND	Book# 060856
3680370.51	555519.74	-4.86	SND	Book# 060856
3680440.37	555524.24	-13.16	CL	Book# 060856
3680365.1	555520.28	-0.832	WES	17thLONDON.dc
3680279.74	555513.84	1.532	LST	17thLONDON.dc
3680255.54	555512.06	0.637	NG	17thLONDON.dc
3680231.31	555511.3	0.216	NG	17thLONDON.dc
3680220.82	555510.49	-0.109	TOE	17thLONDON.dc
3680206.19	555509.76	0.612	SLP	17thLONDON.dc
3680181.21	555507.47	1.598	TOP	17thLONDON.dc
3680155.5	555506.29	0.848	NG	17thLONDON.dc
3680150.37	555505.79	0.73	TOP OF CURB	17thLONDON.dc
3680149.76	555505.53	-0.02	TOE OF CURB	17thLONDON.dc
3680148.65	555504.81	-0.069	E ROAD	17thLONDON.dc
3680356.4	555519.77	2.904	TBK	17thLONDON.dc
3680140.1	555505.04	-0.301	ON ROAD	17thLONDON.dc
3680130.72	555504.21	-0.713	ON ROAD	17thLONDON.dc
3680106.99	555502.72	-1.676	CL ROAD	17thLONDON.dc
3680080.77	555501.45	-2.558	ON ROAD	17thLONDON.dc
3680069.06	555499.75	-2.783	ON ROAD	17thLONDON.dc
3680055.91	555499.76	-2.784	ON ROAD	17thLONDON.dc
3680032.11	555497.68	-3.006	ON ROAD	17thLONDON.dc
3680006.01	555496.73	-3.017	ON ROAD	17thLONDON.dc
3679980.48	555494.47	-2.907	ON ROAD	17thLONDON.dc
3680341.41	555518.03	3.216	FST	17thLONDON.dc
3680334.93	555518.97	3.965	SLP	17thLONDON.dc
3680317.41	555516.6	8.732	FSC	17thLONDON.dc
3680306.42	555515.67	8.4	C\L LEVEE	17thLONDON.dc
3680294.66	555514.99	8.152	LSC	17thLONDON.dc
3680324.8	555517.18	7.176	SLP	17thLONDON.dc
3680285.86	555513.52	2.86	SLP	17thLONDON.dc

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NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3680398.17	554669.76	4.286	TEF	Book# 060856
3680388.19	554669.12	4.186	CL	Book# 060856
3680385.2	554668.93	4.086	TOP	Book# 060856
3680371.22	554668.03	3.286	TOP	Book# 060856
3680366.24	554667.71	-0.114	FL	Book# 060856
3680365.24	554667.64	-2.514	ERK	Book# 060856
3680360.25	554667.32	-3.614	NG	Book# 060856
3680335.3	554665.72	-4.214	NG	Book# 060856
3680318.33	554664.62	-4.414	BLD	Book# 060856
3680312.35	554664.24	-4.594	BLD	Book# 060856
3680235.51	554659.29	-5.594	NG	Book# 060856
3680225.53	554658.65	-5.494	ES	Book# 060856
3680221.53	554658.39	-5.494	ES	Book# 060856
3680219.54	554658.26	-4.794	TOP	Book# 060856
3680210.56	554657.69	-4.894	TOP	Book# 060856
3680207.56	554657.49	-5.594	TPC	Book# 060856
3680206.57	554657.43	-5.994	TPC	Book# 060856
3680194.59	554656.66	-5.794	CLR	Book# 060856
3680181.62	554655.82	-6.294	TEC	Book# 060856
3680180.62	554655.76	-5.894	TPC	Book# 060856
3680160.66	554654.47	-5.394	NG	Book# 060856
3680206.57	554657.43	-5.994	ER	Book# 060856
3680181.62	554655.82	-6.294	ER	Book# 060856
3680475.01	554674.71	-12.86	SND	Book# 060856
3680465.03	554674.07	-12.76	SND	Book# 060856
3680455.05	554673.42	-12.86	SND	Book# 060856
3680445.07	554672.78	-6.86	SND	Book# 060856
3680435.09	554672.14	-3.46	SND	Book# 060856
3680425.11	554671.5	-1.46	SND	Book# 060856
3680475.01	554674.71	-12.86	CL	Book# 060856
3680424.16	554670.59	-0.962	WES	17thLONDON.dc
3680415.28	554670.03	1.65	TBK	17thLONDON.dc
3680410.62	554669.54	2.437	NG	17thLONDON.dc
3680400.32	554668.5	3.121	TOE CONC FLDWALL	17thLONDON.dc
3680399.87	554667.93	13.041	TOP EDGE CONC FLDWAL	17thLONDON.dc
3680399.17	554667.96	13.107	TOP EDGE CONC FLDWAL	17thLONDON.dc

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NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3680402.38	554619.93	4.276	TEF	Book# 060856
3680394.39	554619.42	3.876	CL	Book# 060856
3680388.41	554619.03	3.776	RD	Book# 060856
3680377.43	554618.33	3.176	TOP	Book# 060856
3680370.44	554617.88	-1.124	FL	Book# 060856
3680369.45	554617.81	-2.924	TOE	Book# 060856
3680363.46	554617.43	-3.424	NG	Book# 060856
3680346.49	554616.33	-3.724	EC	Book# 060856
3680341.5	554616.01	-3.224	TOP	Book# 060856
3680341.5	554616.01	-8.824	TOE	Book# 060856
3680315.56	554614.34	-7.024	TOE	Book# 060856
3680311.57	554614.09	-3.224	TOP	Book# 060856
3680310.57	554614.02	-3.224	TOP	Book# 060856
3680310.57	554614.02	-4.224	TOE	Book# 060856
3680306.58	554613.76	-4.224	BLD	Book# 060856
3680255.68	554610.49	-4.594	BLD	Book# 060856
3680250.69	554610.17	-4.794	TOP	Book# 060856
3680247.7	554609.97	-5.294	TOE	Book# 060856
3680238.72	554609.39	-5.694	NG	Book# 060856
3680228.74	554608.75	-5.694	ES	Book# 060856
3680224.75	554608.5	-5.694	ES	Book# 060856
3680211.77	554607.66	-5.794	TPC	Book# 060856
3680210.77	554607.6	-6.194	TEC	Book# 060856
3680197.8	554606.76	-6.094	CLR	Book# 060856
3680184.83	554605.93	-6.194	TEC	Book# 060856
3680183.83	554605.86	-5.894	TPC	Book# 060856
3680163.87	554604.58	-5.294	NG	Book# 060856
3680488.2	554625.46	-12.26	SND	Book# 060856
3680478.22	554624.81	-12.26	SND	Book# 060856
3680468.24	554624.17	-12.46	SND	Book# 060856
3680458.26	554623.53	-12.66	SND	Book# 060856
3680448.28	554622.89	-5.26	SND	Book# 060856
3680438.3	554622.24	-3.46	SND	Book# 060856
3680428.32	554621.6	-1.16	SND	Book# 060856
3680488.2	554625.46	-12.26	CL	Book# 060856
3680428.7	554619.52	-0.919	WES	17thLONDON.dc
3680420.75	554618.84	1.1	TOP	17thLONDON.dc
3680412.46	554620.89	1.785	TOE	17thLONDON.dc
3680409.01	554620.75	2.953	TBK	17thLONDON.dc
3680404.5	554619.14	2.943	TOE CONC FLDWALL	17thLONDON.dc
3680403.85	554618.86	13.013	TOP EDGE CONC FLDWAL	17thLONDON.dc
3680403.4	554618.87	13.013	TOP EDGE CONC FLDWAL	17thLONDON.dc

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NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3680406.6	554570.1	4.376	TEF	Book# 060856
3680397.61	554569.52	3.876	CL	Book# 060856
3680391.63	554569.14	3.776	TLV	Book# 060856
3680387.63	554568.88	3.676	SLP	Book# 060856
3680379.65	554568.37	-2.624	TOE	Book# 060856
3680375.66	554568.11	-2.824	FL	Book# 060856
3680366.68	554567.53	-3.524	NG	Book# 060856
3680344.72	554566.12	-4.724	BLD	Book# 060856
3680279.86	554561.94	-4.694	BLD	Book# 060856
3680266.88	554561.11	-5.194	TC	Book# 060856
3680251.92	554560.14	-5.694	TC	Book# 060856
3680241.94	554559.5	-5.794	TC	Book# 060856
3680216.99	554557.9	-5.694	TEC	Book# 060856
3680215.99	554557.83	-6.094	TPC	Book# 060856
3680202.02	554556.93	-5.794	CLR	Book# 060856
3680189.05	554556.1	-6.094	TEC	Book# 060856
3680188.05	554556.03	-5.794	TPC	Book# 060856
3680167.09	554554.68	-5.194	NG	Book# 060856
3680491.42	554575.56	-12.36	SND	Book# 060856
3680481.44	554574.92	-12.06	SND	Book# 060856
3680471.46	554574.28	-11.96	SND	Book# 060856
3680461.48	554573.63	-12.06	SND	Book# 060856
3680451.5	554572.99	-5.26	SND	Book# 060856
3680441.52	554572.35	-3.26	SND	Book# 060856
3680431.54	554571.71	-1.76	SND	Book# 060856
3680491.42	554575.56	-12.36	CL	Book# 060856
3680407.23	554569.65	13.003	TOP EDGE CONC FLDWAL	17thLONDON.dc
3680407.72	554569.66	13.034	TOP EDGE CONC FLDWAL	17thLONDON.dc
3680408.32	554569.58	3.209	TOE CONC FLDWALL	17thLONDON.dc
3680413.36	554569.79	3.104	TBK	17thLONDON.dc
3680417.1	554570.57	1.606	TOE	17thLONDON.dc
3680422.65	554571.39	1.029	TOP	17thLONDON.dc
3680429.83	554572.17	-0.921	WES	17thLONDON.dc

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NAD83(LA-South-USft) NAVD88(2004.65)

Easting	Northing	Elevation (ft)	Description	Reference
3681162.12	551161.6	-5.82	NG	Book# 060856
3681112.22	551158.39	-5.62	NG	Book# 060856
3681089.27	551156.91	-6.02	ER	Book# 060856
3681079.29	551156.27	-5.82	CLR	Book# 060856
3681067.32	551155.5	-6.22	ER	Book# 060856
3681066.32	551155.43	-5.92	PL	Book# 060856
3681062.33	551155.17	-4.72	SLP	Book# 060856
3681040.37	551153.76	-1.52	TOP	Book# 060856
3681022.41	551152.6	-0.72	TOP	Book# 060856
3681010.43	551151.83	-2.22	BLD	Book# 060856
3681003.45	551151.38	-2.82	BLD	Book# 060856
3681089.27	551156.91	-6.02	SD	Book# 060856
3681079.29	551156.27	-5.82	SD	Book# 060856
3681067.32	551155.5	-6.22	SD	Book# 060856
3681066.32	551155.43	-5.92	TOE	Book# 060856
3681022.41	551152.6	-0.72	SD	Book# 060856
3681010.43	551151.83	-2.22	SD	Book# 060856
3681003.45	551151.38	-2.82	SD	Book# 060856
3680975.51	551149.59	-2.37	BLD	Book# 060856
3680968.52	551149.14	-0.77	TOP	Book# 060856
3680962.53	551148.75	-1.67	NG	Book# 060856
3680924.61	551146.31	0.23	TOP	Book# 060856
3680912.64	551145.54	-2.77	TOE	Book# 060856
3680891.68	551144.19	-3.67	TOE	Book# 060856
3680881.7	551143.55	-1.37	TOP	Book# 060856
3680862.74	551142.32	-2.67	NG	Book# 060856
3680857.75	551142	-3.07	FST	Book# 060856
3680847.77	551141.36	0.23	SLP	Book# 060856
3680836.79	551140.65	3.53	LSC	Book# 060856
3680833.8	551140.46	3.53	TEF	Book# 060856
3680833.8	551140.46	12.91	TPF	Book# 060856
3680832.8	551140.4	12.89	TPF	Book# 060856
3680831.8	551140.33	3.11	TEF	Book# 060856
3680828.81	551140.14	3.11	TBK	Book# 060856
3680822.82	551139.75	0.91	TOP	Book# 060856
3680818.83	551139.5	-0.89	WES	Book# 060856
3680725.02	551133.46	-0.89	WES	Book# 060856
3680719.04	551133.07	2.61	TBK	Book# 060856
3680710.06	551132.49	3.31	TEF	Book# 060856
3680710.06	551132.49	12.86	TPF	Book# 060856
3680709.06	551132.43	12.86	TPF	Book# 060856
3680708.06	551132.37	8.01	TEF	Book# 060856
3680699.08	551131.79	7.71	CLR	Book# 060856
3680686.11	551130.95	7.41	TOP	Book# 060856
3680681.12	551130.63	1.51	TER	Book# 060856
3680675.13	551130.25	0.71	FL	Book# 060856
3680674.13	551130.18	-0.09	TOE	Book# 060856

3680663.15	551129.47	-0.99	NG	Book# 060856
3680613.26	551126.26	-0.89	NG	Book# 060856
3680563.36	551123.05	-0.89	NG	Book# 060856
3680513.46	551119.84	-1.39	NG	Book# 060856
3680499.49	551118.94	-0.69	FL	Book# 060856
3680489.51	551118.3	-5.01	PL	Book# 060856
3680481.53	551117.78	-5.51	ER	Book# 060856
3680467.56	551116.88	-4.81	CLR	Book# 060856
3680463.57	551116.62	-4.81	RD	Book# 060856
3680454.58	551116.05	-5.31	ER	Book# 060856
3680453.59	551115.98	-4.76	TPC	Book# 060856
3680439.62	551115.08	-5.11	SWK	Book# 060856
3680413.67	551113.41	-5.71	NG	Book# 060856
3680393.71	551112.13	-5.21	NG	Book# 060856
3680453.59	551115.98	-4.76	SWK	Book# 060856
3680968.52	551149.14	-0.77	SD	Book# 060856
3680962.53	551148.75	-1.67	SD	Book# 060856
3680924.61	551146.31	0.23	SD	Book# 060856
3680912.64	551145.54	-2.77	SD	Book# 060856
3680891.68	551144.19	-3.67	SD	Book# 060856
3680881.7	551143.55	-1.37	SD	Book# 060856
3680862.74	551142.32	-2.67	SD	Book# 060856
3680857.75	551142	-3.07	SD	Book# 060856
3680847.77	551141.36	0.23	SD	Book# 060856
3680812.84	551139.11	-6.3	SND	Book# 060856
3680802.86	551138.47	-10.1	SND	Book# 060856
3680792.88	551137.83	-12	SND	Book# 060856
3680782.91	551137.18	-11.3	SND	Book# 060856
3680772.93	551136.54	-11.1	CL	Book# 060856

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NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3681165.33	551111.7	-2.52	NG	Book# 060856
3681115.43	551108.49	-5.02	NG	Book# 060856
3681092.48	551107.01	-6.12	ER	Book# 060856
3681081.5	551106.3	-6.12	CLR	Book# 060856
3681071.52	551105.66	-6.02	ER	Book# 060856
3681065.54	551105.28	-0.52	PL	Book# 060856
3681062.54	551105.08	-2.72	TOE	Book# 060856
3681047.57	551104.12	-1.72	TOP	Book# 060856
3681033.6	551103.22	-3.02	TOE	Book# 060856
3681017.64	551102.19	-2.42	BLD	Book# 060856
3681165.33	551111.7	-2.52	SD	Book# 060856
3681115.43	551108.49	-5.02	SD	Book# 060856
3681092.48	551107.01	-6.12	SD	Book# 060856
3681081.5	551106.3	-6.12	SD	Book# 060856
3681071.52	551105.66	-6.02	SD	Book# 060856
3681065.54	551105.28	-0.52	SD	Book# 060856
3681062.54	551105.08	-2.72	SD	Book# 060856
3681047.57	551104.12	-1.72	SD	Book# 060856
3681033.6	551103.22	-3.02	SD	Book# 060856
3680976.72	551099.56	-4.34	BLD	Book# 060856
3680965.74	551098.85	-4.44	TOE	Book# 060856
3680959.76	551098.47	-4.54	TOE	Book# 060856
3680950.77	551097.89	-1.84	TOP	Book# 060856
3680945.78	551097.57	-3.64	TOE	Book# 060856
3680937.8	551097.05	-3.64	TOE	Book# 060856
3680929.82	551096.54	-0.54	TOP	Book# 060856
3680918.84	551095.83	-4.34	TOE	Book# 060856
3680909.86	551095.25	-4.14	TOE	Book# 060856
3680896.89	551094.42	-0.64	TOP	Book# 060856
3680884.91	551093.65	-2.84	TOE	Book# 060856
3680877.92	551093.2	-3.34	TOE	Book# 060856
3680874.93	551093.01	-1.14	TOP	Book# 060856
3680865.95	551092.43	-1.84	NG	Book# 060856
3680861.96	551092.17	-1.44	FST	Book# 060856
3680850.98	551091.46	0.06	SLP	Book# 060856
3680841	551090.82	3.26	LSC	Book# 060856
3680838.01	551090.63	3.36	TEF	Book# 060856
3680838.01	551090.63	12.88	TPF	Book# 060856
3680965.74	551098.85	-4.44	SD	Book# 060856
3680959.76	551098.47	-4.54	SD	Book# 060856
3680950.77	551097.89	-1.84	SD	Book# 060856
3680945.78	551097.57	-3.64	SD	Book# 060856
3680937.8	551097.05	-3.64	SD	Book# 060856
3680929.82	551096.54	-0.54	SD	Book# 060856
3680918.84	551095.83	-4.34	SD	Book# 060856
3680909.86	551095.25	-4.14	SD	Book# 060856
3680896.89	551094.42	-0.64	SD	Book# 060856

3680884.91	551093.65	-2.84	SD	Book# 060856
3680877.92	551093.2	-3.34	SD	Book# 060856
3680874.93	551093.01	-1.14	SD	Book# 060856
3680865.95	551092.43	-1.84	SD	Book# 060856
3680861.96	551092.17	-1.44	SD	Book# 060856
3680837.01	551090.56	12.87	TPF	Book# 060856
3680836.01	551090.5	3.11	TEF	Book# 060856
3680833.02	551090.31	3.11	TBK	Book# 060856
3680824.04	551089.73	0.81	TOP	Book# 060856
3680821.04	551089.54	-0.89	WES	Book# 060856
3680724.24	551083.31	-0.89	WES	Book# 060856
3680723.25	551083.24	2.41	TBK	Book# 060856
3680712.27	551082.53	3.21	TEF	Book# 060856
3680712.27	551082.53	12.86	TPF	Book# 060856
3680711.27	551082.47	12.87	TPF	Book# 060856
3680710.27	551082.41	3.94	TEF	Book# 060856
3680703.29	551081.96	3.44	CLR	Book# 060856
3680697.3	551081.57	3.04	TRK	Book# 060856
3680686.32	551080.86	-2.16	TOE	Book# 060856
3680680.33	551080.48	-3.06	FL	Book# 060856
3680676.34	551080.22	-4.46	TOE	Book# 060856
3680666.36	551079.58	-4.76	NG	Book# 060856
3680616.47	551076.37	-4.96	NG	Book# 060856
3680566.57	551073.16	-4.96	NG	Book# 060856
3680516.67	551069.94	-5.56	NG	Book# 060856
3680503.7	551069.11	-5.16	FL	Book# 060856
3680500.71	551068.92	-5.46	ES	Book# 060856
3680496.71	551068.66	-5.36	ES	Book# 060856
3680486.73	551068.02	-5.26	TPC	Book# 060856
3680485.74	551067.95	-5.66	ER	Book# 060856
3680472.76	551067.12	-4.86	CLR	Book# 060856
3680466.78	551066.73	-4.96	RD	Book# 060856
3680459.79	551066.28	-5.26	ER	Book# 060856
3680459.79	551066.28	-4.86	TPC	Book# 060856
3680458.79	551066.22	-4.86	TPC	Book# 060856
3680447.82	551065.51	-4.86	ES	Book# 060856
3680443.82	551065.25	-4.76	ES	Book# 060856
3680435.84	551064.74	-4.71	ES	Book# 060856
3680428.85	551064.29	-4.76	ES	Book# 060856
3680416.88	551063.52	-4.76	NG	Book# 060856
3680396.92	551062.23	-4.86	NG	Book# 060856
3680816.05	551089.22	-4.9	SND	Book# 060856
3680806.07	551088.57	-9.7	SND	Book# 060856
3680796.09	551087.93	-11.3	SND	Book# 060856
3680786.11	551087.29	-11.6	SND	Book# 060856
3680776.14	551086.65	-11.3	SND	Book# 060856
3680776.14	551086.65	-11.3	CL	Book# 060856

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NAD83(LA-South-USft) Easting	Northing	NAVD88(2004.65) Elevation (ft)	Description	Reference
3681126.64	551059.1	-4.42	BLD	Book# 060856
3681118.65	551058.59	-4.22	NG	Book# 060856
3681098.69	551057.3	-6.42	ER	Book# 060856
3681086.72	551056.53	-6.12	CLR	Book# 060856
3681075.74	551055.83	-6.32	ER	Book# 060856
3681068.76	551055.38	-0.92	PL	Book# 060856
3681057.78	551054.67	-0.52	TOP	Book# 060856
3681055.78	551054.54	-2.22	TOE	Book# 060856
3681046.8	551053.96	-1.02	TOP	Book# 060856
3681018.86	551052.16	-1.72	NG	Book# 060856
3681126.64	551059.1	-4.42	SD	Book# 060856
3681118.65	551058.59	-4.22	SD	Book# 060856
3681098.69	551057.3	-6.42	SD	Book# 060856
3681086.72	551056.53	-6.12	SD	Book# 060856
3681068.76	551055.38	-0.92	SD	Book# 060856
3681057.78	551054.67	-0.52	SD	Book# 060856
3681055.78	551054.54	-2.22	SD	Book# 060856
3681046.8	551053.96	-1.02	SD	Book# 060856
3681018.86	551052.16	-1.72	SD	Book# 060856
3680989.92	551050.3	-3.04	SD	Book# 060856
3680978.94	551049.59	0.06	SD	Book# 060856
3680968.96	551048.95	0.56	SD	Book# 060856
3680943.02	551047.28	-4.54	SD	Book# 060856
3680919.07	551045.74	-3.54	SD	Book# 060856
3680989.92	551050.3	-3.04	TOE	Book# 060856
3680978.94	551049.59	0.06	TOP	Book# 060856
3680968.96	551048.95	0.56	TOP	Book# 060856
3680943.02	551047.28	-4.54	TOE	Book# 060856
3680919.07	551045.74	-3.54	SLP	Book# 060856
3680912.08	551045.29	-0.24	TOP	Book# 060856
3680898.11	551044.39	-2.54	TOE	Book# 060856
3680869.17	551042.53	-1.44	NG	Book# 060856
3680866.18	551042.34	-0.94	FST	Book# 060856
3680859.19	551041.89	-0.34	SLP	Book# 060856
3680846.22	551041.05	3.16	LSC	Book# 060856
3680842.23	551040.79	3.46	TEF	Book# 060856
3680842.23	551040.79	12.9	TPF	Book# 060856
3680912.08	551045.29	-0.24	SD	Book# 060856
3680898.11	551044.39	-2.54	SD	Book# 060856
3680841.23	551040.73	12.87	TPF	Book# 060856
3680840.23	551040.67	3.31	TEF	Book# 060856
3680836.24	551040.41	3.31	TBK	Book# 060856
3680829.25	551039.96	1.21	TOP	Book# 060856
3680825.26	551039.7	-0.89	WES	Book# 060856
3680728.46	551033.47	-0.89	WES	Book# 060856
3680725.47	551033.28	2.81	TBK	Book# 060856
3680717.48	551032.76	2.91	TEF	Book# 060856

3680717.48	551032.76	12.88	TPF	Book# 060856
3680716.49	551032.7	12.89	TPF	Book# 060856
3680715.49	551032.64	3.61	TEF	Book# 060856
3680708.5	551032.19	3.41	CLR	Book# 060856
3680700.52	551031.67	3.01	TOP	Book# 060856
3680692.54	551031.16	-1.89	TOE	Book# 060856
3680682.56	551030.52	-3.09	FL	Book# 060856
3680681.56	551030.45	-4.29	TOE	Book# 060856
3680669.58	551029.68	-4.99	NG	Book# 060856
3680619.69	551026.47	-4.89	NG	Book# 060856
3680569.79	551023.26	-5.19	NG	Book# 060856
3680519.89	551020.04	-5.19	NG	Book# 060856
3680504.92	551019.08	-4.69	FL	Book# 060856
3680502.93	551018.95	-4.89	ES	Book# 060856
3680499.93	551018.76	-4.99	ES	Book# 060856
3680488.96	551018.05	-4.99	TPC	Book# 060856
3680487.96	551017.99	-5.44	ER	Book# 060856
3680474.99	551017.15	-5.09	CLR	Book# 060856
3680470	551016.83	-5.09	RD	Book# 060856
3680463.01	551016.38	-5.49	ER	Book# 060856
3680461.01	551016.25	-5.19	TPC	Book# 060856
3680450.04	551015.55	-5.29	ES	Book# 060856
3680446.05	551015.29	-4.99	ES	Book# 060856
3680428.08	551014.13	-4.59	BLD	Book# 060856
3680819.27	551039.32	-6	SND	Book# 060856
3680809.29	551038.67	-9	SND	Book# 060856
3680799.31	551038.03	-9.7	SND	Book# 060856
3680789.33	551037.39	-10.4	SND	Book# 060856
3680779.36	551036.75	-11.2	SND	Book# 060856
3680769.38	551036.1	-11.6	SND	Book# 060856
3680769.38	551036.1	-11.6	CL	Book# 060856

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NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3681110.51	550406.72	-3.93	NG	Book# 060856
3681085.56	550405.12	-4.13	NG	Book# 060856
3681068.59	550404.03	-3.23	BLD	Book# 060856
3681028.68	550401.46	-3.73	BLD	Book# 060856
3681010.71	550400.3	-3.93	NG	Book# 060856
3680985.76	550398.69	-3.83	NG	Book# 060856
3680960.82	550397.09	-3.63	NG	Book# 060856
3680935.87	550395.48	-3.23	NG	Book# 060856
3680920.9	550394.52	-2.33	FL	Book# 060856
3680915.91	550394.2	-1.73	TOE	Book# 060856
3680910.92	550393.87	-0.23	SLP	Book# 060856
3680898.94	550393.1	2.97	LSC	Book# 060856
3680889.96	550392.53	3.67	TEF	Book# 060856
3680889.96	550392.53	12.72	TPF	Book# 060856
3680888.97	550392.46	12.72	TPF	Book# 060856
3680887.97	550392.4	4.17	TEF	Book# 060856
3680884.97	550392.2	3.87	TBK	Book# 060856
3680882.98	550392.08	3.2	TSP	Book# 060856
3680882.98	550392.08	-1.23	WES	Book# 060856
3680882.98	550392.08	-1.5	SND	Book# 060856
3680880.98	550391.95	-1.9	SND	Book# 060856
3680871	550391.3	-4.5	SND	Book# 060856
3680861.02	550390.66	-6.1	SND	Book# 060856
3680851.04	550390.02	-9.6	SND	Book# 060856
3680841.06	550389.38	-10.1	SND	Book# 060856
3680831.09	550388.73	-9.9	SND	Book# 060856
3680821.11	550388.09	-8.1	SND	Book# 060856
3680821.11	550388.09	-8.1	CL	Book# 060856

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NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3681113.72	550356.83	-4.23	DRV	Book# 060856
3681088.77	550355.22	-4.03	DRV	Book# 060856
3681080.78	550354.71	-3.93	BLD	Book# 060856
3681005.94	550349.89	-3.63	BLD	Book# 060856
3680988.97	550348.8	-3.63	NG	Book# 060856
3680964.03	550347.19	-3.73	NG	Book# 060856
3680939.08	550345.58	-3.83	NG	Book# 060856
3680923.11	550344.56	-3.53	FL	Book# 060856
3680914.13	550343.98	-0.73	NG	Book# 060856
3680902.15	550343.21	3.17	LSC	Book# 060856
3680895.17	550342.76	3.67	TEF	Book# 060856
3680923.11	550344.56	-3.53	TOE	Book# 060856
3680895.17	550342.76	12.77	TPF	Book# 060856
3680894.17	550342.69	12.77	TPF	Book# 060856
3680893.17	550342.63	3.27	TEF	Book# 060856
3680888.18	550342.31	2.87	TBK	Book# 060856
3680888.18	550342.31	3.77	TSP	Book# 060856
3680887.19	550342.24	1.17	TOE	Book# 060856
3680881.2	550341.86	-1.23	WE	Book# 060856
3680778.41	550335.24	-1.23	WES	Book# 060856
3680777.41	550335.18	1.17	TOP	Book# 060856
3680767.43	550334.53	2.17	TOE	Book# 060856
3680767.43	550334.53	3.87	TSP	Book# 060856
3680766.44	550334.47	2.87	TBK	Book# 060856
3680763.44	550334.28	3.57	TEF	Book# 060856
3680763.44	550334.28	12.87	TPF	Book# 060856
3680762.44	550334.21	12.87	TPF	Book# 060856
3680881.2	550341.86	-3.22	SND	Book# 060856
3680874.21	550341.41	-6.62	SND	Book# 060856
3680864.23	550340.77	-9.52	SND	Book# 060856
3680854.25	550340.12	-9.92	SND	Book# 060856
3680844.27	550339.48	-9.82	SND	Book# 060856
3680834.29	550338.84	-9.92	SND	Book# 060856
3680824.32	550338.2	-9.62	SND	Book# 060856
3680814.34	550337.55	-9.92	SND	Book# 060856
3680804.36	550336.91	-10.62	SND	Book# 060856
3680794.38	550336.27	-8.02	SND	Book# 060856
3680784.4	550335.63	-2.22	SND	Book# 060856
3680824.32	550338.2	-9.62	CL	Book# 060856

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NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3681116.94	550306.93	-4.13	NG	Book# 060856
3681091.99	550305.32	-3.43	NG	Book# 060856
3681079.02	550304.48	-3.73	BLD	Book# 060856
3681044.09	550302.24	-3.38	BLD	Book# 060856
3681017.14	550300.5	-2.98	NG	Book# 060856
3680992.19	550298.9	-3.38	NG	Book# 060856
3680967.25	550297.29	-3.58	NG	Book# 060856
3680942.3	550295.68	-3.58	NG	Book# 060856
3680926.33	550294.66	-2.98	FL	Book# 060856
3680917.35	550294.08	-1.08	SLP	Book# 060856
3680905.37	550293.31	3.42	LSC	Book# 060856
3680898.39	550292.86	9.57	TEF	Book# 060856
3680926.33	550294.66	2.77	TOE	Book# 060856
3680898.39	550292.86	12.77	TPF	Book# 060856
3680897.39	550292.79	12.77	TPF	Book# 060856
3680896.39	550292.73	2.97	TEF	Book# 060856
3680891.4	550292.41	2.67	TBK	Book# 060856
3680891.4	550292.41	4.07	TSP	Book# 060856
3680890.41	550292.34	-0.23	TOE	Book# 060856
3680886.41	550292.09	-1.23	WES	Book# 060856
3680891.4	550292.41	-0.42	SND	Book# 060856
3680887.41	550292.15	-0.92	SND	Book# 060856
3680877.43	550291.51	-5.22	SND	Book# 060856
3680867.45	550290.87	-10.02	SND	Book# 060856
3680857.47	550290.22	-10.32	SND	Book# 060856
3680847.49	550289.58	-10.22	SND	Book# 060856
3680837.51	550288.94	-10.02	SND	Book# 060856
3680827.54	550288.3	-10.22	SND	Book# 060856
3680827.54	550288.3	-10.22	CL	Book# 060856

APPENDIX Q

**Interior Drainage Topo Sections (150 +/- ---
reduced to +/-85 x-sections (to be decided by field visit))—
St Bernard Parish (TG 2/3 Interior Drainage Support)**

Survey data is still being collected for Saint Bernard Area 2 cross sections. The data will be submitted once it is complete.

Saint Bernard Area 3 – Cross Sections

NAD83(LA-South-USft)		NAVD88(2004.65)		
Easting	**Northing**	**Elevation (ft)**	**Description**	**Reference**
3741327.15	512944.36	-1.23	TBK	Book 060859
3741320.62	512941.85	-2.83	WE	Book 060859
3741301.94	512934.68	-7.33	CB	Book 060859
3741283.27	512927.51	-8.83	CB	Book 060859
3741264.6	512920.35	-7.43	CB	Book 060859
3741245.93	512913.18	-10.83	CB	Book 060859
3741227.26	512906.01	-4.23	CB	Book 060859
3741222.59	512904.22	-2.83	WE	Book 060859
3741216.99	512902.07	0.27	TBK	Book 060859
3742632.68	510355.94	-1.44	TBK	Book 060859
3742629.81	510355.06	-2.84	WE	Book 060859
3742623.12	510353.02	-5.34	CB	Book 060859
3742608.77	510348.63	-7.34	CB	Book 060859
3742599.21	510345.71	-9.84	CB	Book 060859
3742580.08	510339.86	-10.94	CB	Book 060859
3742560.96	510334.01	-11.84	CB	Book 060859
3742541.83	510328.17	-9.44	CB	Book 060859
3742525.57	510323.2	-2.84	WE	Book 060859
3742516.97	510320.56	-1.54	SLP	Book 060859
3742509.32	510318.23	-0.14	TBK	Book 060859
3742928.53	508070.15	0	TBK	Book 060859
3742922.54	508070.31	-1.2	SLP	Book 060859
3742916.54	508070.47	-2.9	WE	Book 060859
3742910.54	508070.62	-4.9	CB	Book 060859
3742890.55	508071.15	-8.9	CB	Book 060859
3742870.55	508071.67	-8.9	CB	Book 060859
3742850.56	508072.19	-9.2	CB	Book 060859
3742830.57	508072.72	-9.9	CB	Book 060859
3742810.57	508073.24	-3.9	CB	Book 060859
3742806.58	508073.35	-2.9	WE	Book 060859
3742802.58	508073.45	-1.6	SLP	Book 060859
3742796.58	508073.61	0.7	TBK	Book 060859
3743015.56	504933.16	1.81	TBK	Book 060859
3743012.69	504927.9	-0.99	SLP	Book 060859
3743009.33	504921.75	-2.69	WE	Book 060859
3743005.02	504913.85	-5.69	CB	Book 060859
3742997.84	504900.68	-6.09	CB	Book 060859
3742990.65	504887.52	-9.29	CB	Book 060859
3742986.34	504879.62	-8.39	CB	Book 060859
3742982.51	504872.59	-6.69	CB	Book 060859
3742979.16	504866.45	-4.99	CB	Book 060859
3742976.29	504861.18	-2.69	WE	Book 060859
3742975.81	504860.3	-1.39	SLP	Book 060859
3742971.5	504852.4	2.01	TBK	Book 060859
3749894.12	503875.42	-0.97	TBK	Book 060859

3749893.35	503867.46	-2.07	SLP	Book 060859
3749892.87	503862.48	-3.07	WE	Book 060859
3749891.92	503852.53	-6.07	CB	Book 060859
3749890.96	503842.58	-6.37	CB	Book 060859
3749889.04	503822.67	-6.27	CB	Book 060859
3749888.08	503812.71	-6.17	CB	Book 060859
3749887.12	503802.76	-3.07	WE	Book 060859
3749886.17	503792.81	-1.77	SLP	Book 060859
3749885.21	503782.85	0.43	TBK	Book 060859
3753158.97	502968.37	-0.83	TBK	Book 060859
3753155.69	502962.19	-1.73	SLP	Book 060859
3753153.81	502958.65	-3.03	WE	Book 060859
3753152.4	502956	-4.03	CB	Book 060859
3753147.7	502947.18	-5.03	CB	Book 060859
3753138.32	502929.52	-7.53	CB	Book 060859
3753128.93	502911.86	-7.63	CB	Book 060859
3760986.53	505556.87	-2.97	WE	Book 060859
3760986.16	505542.88	-7.17	CB	Book 060859
3760985.64	505522.89	-7.67	CB	Book 060859
3760985.12	505502.89	-7.07	CB	Book 060859
3760984.72	505487.9	-2.97	WE	Book 060859
3760984.59	505482.9	-1.47	TBK	Book 060859
3760986.69	505562.87	-1.77	TBK	Book 060859
3753125.17	502904.79	-3.03	WE	Book 060859
3753122.35	502899.5	-1.93	TBK	Book 060859
3769083.37	505060.12	-1.11	TBK	Book 060859
3769082.52	505057.25	-3.01	WE	Book 060859
3769076.84	505038.07	-7.01	CB	Book 060859
3769071.16	505018.89	-9.41	CB	Book 060859
3769065.48	504999.72	-9.41	CB	Book 060859
3769059.8	504980.54	-10.51	CB	Book 060859
3769054.12	504961.36	-4.91	CB	Book 060859
3769051.57	504952.73	-3.01	WE	Book 060859
3769048.16	504941.23	-1.11	TBK	Book 060859
3772539.84	503798.82	-2.22	TBK	Book 060859
3772538.95	503798.37	-3.02	WE	Book 060859
3772537.17	503797.46	-5.02	CB	Book 060859
3772519.35	503788.38	-9.52	CB	Book 060859
3772501.53	503779.3	-9.22	CB	Book 060859
3772483.71	503770.22	-10.22	CB	Book 060859
3772465.88	503761.14	-10.12	CB	Book 060859
3772448.06	503752.06	-7.52	CB	Book 060859
3772433.81	503744.8	-3.02	WE	Book 060859
3772425.79	503740.71	-1.32	TBK	Book 060859
3773335.93	500687.77	0.59	TBK	Book 060859
3773329.27	500689.93	-2.01	SLP	Book 060859
3773324.51	500691.47	-3.01	WE	Book 060859
3773315.96	500694.26	-3.41	CB	Book 060859
3773296.93	500700.44	-4.01	CB	Book 060859

3773277.91	500706.62	-3.61	CB	Book 060859
3773258.89	500712.8	-3.51	CB	Book 060859
3773253.19	500714.65	-4.31	CB	Book 060859
3773249.38	500715.89	-6.01	CB	Book 060859
3773239.87	500718.98	-9.71	CB	Book 060859
3773227.51	500722.99	-3.01	WE	Book 060859
3773223.7	500724.23	1.29	TBK	Book 060859
3765319.78	500290.75	4.92	ER	Book 060859
3765319.67	500287.75	4.52	TBK	Book 060859
3765319.33	500277.76	0.32	SLP	Book 060859
3765319.15	500272.76	-0.68	WE	Book 060859
3765319.08	500270.76	-1.28	BD	Book 060859
3765319.01	500268.76	-2.48	BD	Book 060859
3765318.77	500261.77	-2.68	BD	Book 060859
3765318.38	500250.77	-1.98	BD	Book 060859
3765318.17	500244.78	-0.68	WE	Book 060859
3765317.96	500238.78	0.82	TBK	Book 060859
3771510.78	499544.91	5.08	ER	Book 060859
3771510.2	499544.1	4.08	TBK	Book 060859
3771503.14	499534.39	-1.52	SLP	Book 060859
3771500.2	499530.35	-2.72	WE	Book 060859
3771497.26	499526.3	-3.72	DB	Book 060859
3771491.97	499519.02	-4.32	DB	Book 060859
3771487.27	499512.55	-3.72	DB	Book 060859
3771484.92	499509.31	-2.72	WE	Book 060859
3771481.39	499504.46	-1.42	SLP	Book 060859
3771477.28	499498.8	0.58	SLP	Book 060859
3771471.4	499490.7	2.28	TBK	Book 060859
3772962.6	499472.26	1.66	TBK	Book 060859
3772956.99	499474.41	-0.94	SLP	Book 060859
3772948.59	499477.63	-2.94	WE	Book 060859
3772942.99	499479.78	-4.34	CB	Book 060859
3772933.65	499483.37	-4.94	CB	Book 060859
3772924.32	499486.95	-5.74	CB	Book 060859
3772905.65	499494.12	-4.24	CB	Book 060859
3772903.78	499494.83	-2.94	WE	Book 060859
3772897.24	499497.34	-1.24	SLP	Book 060859
3772893.51	499498.78	1.66	TBK	Book 060859
3772544.24	498364.26	1.89	TBK	Book 060859
3772540.38	498365.29	-0.71	SLP	Book 060859
3772531.69	498367.62	-2.91	WE	Book 060859
3772520.1	498370.73	-6.11	CB	Book 060859
3772510.44	498373.32	-6.71	CB	Book 060859
3772500.78	498375.91	-7.31	CB	Book 060859
3772491.12	498378.49	-7.01	CB	Book 060859
3772481.46	498381.08	-6.61	CB	Book 060859
3772467.94	498384.71	-2.91	WE	Book 060859
3772459.24	498387.04	-0.91	SLP	Book 060859
3772453.45	498388.59	1.19	TBK	Book 060859

3751050.87	495767.85	-2.08	TBK	Book 060859
3751050.72	495771.84	-2.98	WE	Book 060859
3751050	495791.83	-6.48	CB	Book 060859
3751049.27	495811.82	-8.08	CB	Book 060859
3751048.54	495831.8	-8.98	CB	Book 060859
3751047.82	495851.79	-9.28	CB	Book 060859
3751047.27	495866.78	-7.58	CB	Book 060859
3751046.91	495876.77	-2.98	WE	Book 060859
3751046.73	495881.77	-1.28	TBK	Book 060859
3757034.41	500879.97	5.58	ER	Book 060859
3757033.63	500877.07	5.18	TBK	Book 060859
3757032.08	500871.28	3.08	SLP	Book 060859
3757030.53	500865.48	0.08	WE	Book 060859
3757029.75	500862.58	-1.02	DB	Book 060859
3757028.46	500857.75	-1.52	DB	Book 060859
3757027.16	500852.92	-1.92	DB	Book 060859
3757024.83	500844.23	-1.42	DB	Book 060859
3757022.76	500836.5	0.08	WE	Book 060859
3757020.69	500828.78	3.38	TBK	Book 060859
3750236.45	500040.31	7.94	ER	Book 060859
3750234.94	500033.47	4.84	SLP	Book 060859
3750233.21	500025.66	1.04	WE	Book 060859
3750231.04	500015.9	-0.16	TD	Book 060859
3750229.31	500008.09	0.34	TD	Book 060859
3750228.88	500006.14	1.04	WE	Book 060859
3750227.36	499999.3	3.34	TBK	Book 060859
3743685.66	500347.36	8.12	ER	Book 060859
3743685.51	500344.37	7.82	TBK	Book 060859
3743685.3	500340.37	7.02	SLP	Book 060859
3743684.82	500331.38	2.72	WE	Book 060859
3743684.46	500324.39	1.72	TD	Book 060859
3743683.83	500312.41	1.72	TD	Book 060859
3743683.52	500306.42	2.72	WE	Book 060859
3743683.15	500299.43	5.52	TBK	Book 060859
3735396.14	495553.89	0.67	TBK	Book 060859
3735396.33	495564.89	-1.53	SLP	Book 060859
3735396.4	495568.89	-2.93	WE	Book 060859
3735396.74	495587.88	-5.93	CB	Book 060859
3735397.08	495607.88	-7.03	CB	Book 060859
3735397.43	495627.88	-9.43	CB	Book 060859
3735397.78	495647.88	-7.03	CB	Book 060859
3735398.1	495665.87	-2.93	WE	Book 060859
3735398.17	495669.87	-1.43	SLP	Book 060859
3735398.38	495681.87	1.07	TBK	Book 060859
3738765.29	500336.18	8.64	ER	Book 060859
3738765.51	500331.18	8.14	TBK	Book 060859
3738765.64	500328.19	7.14	SLP	Book 060859
3738765.99	500320.19	3.34	WE	Book 060859
3738766.25	500314.2	1.54	TD	Book 060859

3738766.6	500306.21	1.54	TD	Book 060859
3738766.9	500299.21	3.34	WE	Book 060859
3738767.21	500292.22	6.64	TBK	Book 060859
3737069.24	502437.51	4.29	TBK	Book 060859
3737067.67	502428.64	-1.11	WE	Book 060859
3737066.81	502423.72	-2.01	CLD	Book 060859
3737066.11	502419.78	-1.11	WE	Book 060859
3737064.38	502409.93	5.39	TBK	Book 060859
3741813.45	501895.01	2.45	TBK	Book 060859
3741813.73	501899	-0.25	SLP	Book 060859
3741814.08	501903.99	-1.85	SLP	Book 060859
3741814.14	501904.99	-2.85	WE	Book 060859
3741814.35	501907.98	-3.85	DB	Book 060859
3741814.7	501912.97	-4.85	DB	Book 060859
3741815.12	501918.95	-5.35	DB	Book 060859
3741815.75	501927.93	-5.45	DB	Book 060859
3741816.03	501931.92	-2.85	WE	Book 060859
3741816.24	501934.91	-1.55	SLP	Book 060859
3741816.73	501941.9	1.65	TBK	Book 060859
3742411.54	501913.29	0.665	TBK	Book 060859
3742408.55	501913.55	-0.135	SLP	Book 060859
3742400.58	501914.25	-2.735	WE	Book 060859
3742396.6	501914.6	-4.235	DB	Book 060859
3742383.65	501915.73	-7.235	DB	Book 060859
3742371.69	501916.78	-5.135	DB	Book 060859
3742366.71	501917.21	-2.735	WE	Book 060859
3742365.72	501917.3	-1.735	SLP	Book 060859
3742362.73	501917.56	-0.935	SLP	Book 060859
3742356.75	501918.09	0.965	TBK	Book 060859
3744659.86	503002.82	5.47	ER	Book 060859
3744640.87	503003.65	3.07	SLP	Book 060859
3744628.89	503004.17	1.37	NG	Book 060859
3744623.89	503004.39	0.47	WE	Book 060859
3744617.9	503004.65	-0.23	CLD	Book 060859
3744613.9	503004.83	0.47	WE	Book 060859
3744609.9	503005	1.87	SLP	Book 060859
3744599.91	503005.44	3.57	TBK	Book 060859
3746505.3	502158.16	6.07	ER	Book 060859
3746505.23	502154.16	5.47	SLP	Book 060859
3746504.92	502136.16	3.27	SLP	Book 060859
3746504.52	502113.16	1.07	TBK	Book 060859
3746504.36	502104.16	-0.43	WE	Book 060859
3746504.25	502098.17	-1.73	CLD	Book 060859
3746504.18	502094.17	-0.43	WE	Book 060859
3746504.1	502089.17	1.17	TBK	Book 060859
3749425.63	502196.13	6.06	ER	Book 060859
3749425.73	502190.13	5.56	SLP	Book 060859
3749426.01	502174.13	3.46	SLP	Book 060859
3749426.26	502160.14	1.16	SLP	Book 060859

3749426.41	502151.14	0.16	TBK	Book 060859
3749426.46	502148.14	-0.24	WE	Book 060859
3749426.55	502143.14	-1.54	CLD	Book 060859
3749426.66	502137.14	-0.24	WE	Book 060859
3749426.73	502133.14	1.26	TBK	Book 060859
3751666.31	502255.47	5.7	ER	Book 060859
3751666.31	502251.47	5.2	SLP	Book 060859
3751666.31	502245.47	4.3	SLP	Book 060859
3751666.31	502235.47	3.5	SLP	Book 060859
3751666.31	502217.47	1.5	SLP	Book 060859
3751666.31	502197.47	0.2	TBK	Book 060859
3751666.31	502187.47	-1.4	WE	Book 060859
3751666.31	502184.47	-2.8	CLD	Book 060859
3751666.31	502176.47	-1.4	WE	Book 060859
3751666.31	502171.47	0.2	TBK	Book 060859
3754355.53	502355.33	6.83	ER	Book 060859
3754356.23	502350.38	6.23	SLP	Book 060859
3754357.76	502339.49	3.83	SLP	Book 060859
3754359.98	502323.64	1.53	SLP	Book 060859
3754363.05	502301.86	-0.17	WE	Book 060859
3754363.6	502297.9	-2.17	TD	Book 060859
3754364.58	502290.96	-2.17	TD	Book 060859
3754365.69	502283.04	0.13	TBK	Book 060859
3756773.71	503107.92	5.91	ER	Book 060859
3756780.55	503089.12	3.61	SLP	Book 060859
3756792.86	503055.29	0.31	TBK	Book 060859
3756794.57	503050.59	-3.39	TD	Book 060859
3756796.97	503044.02	-3.19	TD	Book 060859
3756799.02	503038.38	0.31	TBK	Book 060859
3759161.84	504045.95	5.95	ER	Book 060859
3759168.5	504026.03	3.85	SLP	Book 060859
3759174.85	504007.07	0.85	SLP	Book 060859
3759179.29	503993.79	-0.15	TBK	Book 060859
3759180.56	503990	-2.15	TD	Book 060859
3759182.78	503983.36	-4.15	CLD	Book 060859
3759184.05	503979.56	-1.55	TD	Book 060859
3759185.64	503974.82	0.85	TBK	Book 060859
3761783.4	504519.68	5.7	ER	Book 060859
3761782.31	504494.7	3.1	SLP	Book 060859
3761781.57	504477.72	0.7	SLP	Book 060859
3761781.09	504466.73	0.1	TBK	Book 060859
3761780.87	504461.74	-1.3	TD	Book 060859
3761780.74	504458.74	-1.5	CLD	Book 060859
3761780.48	504452.74	-1.5	TD	Book 060859
3761780.31	504448.75	-0.3	SLP	Book 060859
3761780.09	504443.75	0.8	TBK	Book 060859
3764320.72	504330.64	4.94	ER	Book 060859
3764316.49	504303.97	4.34	SLP	Book 060859
3764314.15	504289.16	3.74	SLP	Book 060859

3764311.96	504275.33	0.04	TBK	Book 060859
3764310.86	504268.41	-2.56	TD	Book 060859
3764310.24	504264.46	-2.96	CLD	Book 060859
3764309.14	504257.55	-2.66	TD	Book 060859
3764308.36	504252.61	-1.56	SLP	Book 060859
3764307.73	504248.66	0.24	TBK	Book 060859
3766917.68	504135.62	4.27	ER	Book 060859
3766916.15	504113.68	1.57	SLP	Book 060859
3766914.68	504092.73	-0.23	SLP	Book 060859
3766913.43	504074.77	-1.53	TBK	Book 060859
3766913.08	504069.78	-3.33	TD	Book 060859
3766912.59	504062.8	-4.13	CLD	Book 060859
3766912.17	504056.81	-3.23	TD	Book 060859
3766911.89	504052.82	-1.13	TBK	Book 060859
3769559.05	503921.94	3.12	ER	Book 060859
3769553.64	503896.51	1.92	SLP	Book 060859
3769547.82	503869.12	-0.78	TBK	Book 060859
3769545.74	503859.34	-3.98	TD	Book 060859
3769544.08	503851.52	-7.98	CLD	Book 060859
3769542.42	503843.69	-7.88	TD	Book 060859
3769541.17	503837.82	-0.68	TBK	Book 060859
3771565.22	502504.94	4.01	ER	Book 060859
3771552.28	502495.54	2.81	SLP	Book 060859
3771535.29	502483.19	1.01	SLP	Book 060859
3771519.92	502472.03	-0.19	TBK	Book 060859
3771515.06	502468.5	-1.39	SLP	Book 060859
3771511.82	502466.15	-2.89	WE	Book 060859
3771508.59	502463.8	-3.99	DB	Book 060859
3771506.16	502462.03	-6.59	DB	Book 060859
3771499.69	502457.33	-5.69	DB	Book 060859
3771495.64	502454.39	-2.89	WE	Book 060859
3771493.22	502452.63	-1.39	TBK	Book 060859
3773163.32	500373.84	8.16	ER	Book 060859
3773153.8	500368.34	6.86	SLP	Book 060859
3773126.08	500352.34	0.96	SLP	Book 060859
3773102.7	500338.84	-1.74	TBK	Book 060859
3773101.83	500338.34	-2.64	WE	Book 060859
3773099.24	500336.84	-3.14	DB	Book 060859
3773097.5	500335.84	-7.54	DB	Book 060859
3773094.04	500333.84	-9.54	DB	Book 060859
3773089.71	500331.34	-5.44	DB	Book 060859
3773087.11	500329.84	-2.64	WE	Book 060859
3773085.38	500328.84	-1.44	TBK	Book 060859
3773150.57	500283.95	-3.01	WE	Book 060859
3773152.53	500290.67	-0.81	TBK	Book 060859
3773156.43	500304.12	0.39	SLP	Book 060859
3773162.28	500324.28	3.49	SLP	Book 060859
3773169.25	500348.29	7.19	SLP	Book 060859
3773172.87	500360.78	8.19	ER	Book 060859

3773185.69	500404.95	8.39	ER	Book 060859
3773191.55	500425.12	6.79	NG	Book 060859
3773198.52	500449.13	8.39	ER	Book 060859
3773212.17	500496.19	7.59	ER	Book 060859
3773219.7	500522.12	4.74	SLP	Book 060859
3773225.27	500541.33	1.44	TBK	Book 060859
3773227.22	500548.05	-2.76	WE	Book 060859
3772502.25	498970.07	3.86	ER	Book 060859
3772501.81	498969.17	3.26	TBK	Book 060859
3772499.62	498964.68	1.86	SLP	Book 060859
3772497.87	498961.09	-0.24	SLP	Book 060859
3772496.55	498958.39	-0.84	SLP	Book 060859
3772494.36	498953.89	-2.84	WE	Book 060859
3772492.61	498950.3	-4.24	DB	Book 060859
3772487.35	498939.51	-6.14	DB	Book 060859
3772484.72	498934.12	-3.84	DB	Book 060859
3772482.09	498928.73	-2.84	WE	Book 060859
3772480.77	498926.03	-1.84	SLP	Book 060859
3772479.02	498922.44	0.56	TBK	Book 060859
3772515.59	498929.38	-2.87	WE	Book 060859
3772520.15	498927.33	-0.97	SLP	Book 060859
3772528.36	498923.64	0.83	TBK	Book 060859
3772533.83	498921.18	1.23	RMP	Book 060859
3772555.72	498911.33	1.53	RMP	Book 060859
3772563.93	498907.64	1.53	TBK	Book 060859
3772568.49	498905.59	-2.87	WE	Book 060859
3768430.89	495995.62	0.83	TBK	Book 060859
3768431.36	496001.6	-1.87	SLP	Book 060859
3768431.75	496006.59	-2.97	WE	Book 060859
3768431.9	496008.58	-4.67	CB	Book 060859
3768432.68	496018.55	-5.47	CB	Book 060859
3768434.24	496038.49	-7.57	CB	Book 060859
3768435.8	496058.43	-6.97	CB	Book 060859
3768437.04	496074.38	-2.97	WE	Book 060859
3768437.59	496081.36	-1.07	SLP	Book 060859
3768438.06	496087.34	0.73	TBK	Book 060859

APPENDIX R

Invert Elevations: London & Orleans Outfall Canal PS:
(TG 4—Numerical Storm Surge Models)

The survey data has not been collected for this item due to field conditions. This data will be submitted once complete.

APPENDIX S

TBM Descriptions: (TG 6 and MVN)

There were no stable or recoverable marks set for this survey. There are no descriptions to submit for this section.

APPENDIX T

Orleans Outfall Canal BM ALCO to CHRYSLER Level Run (TG 1)

	NAVD88(2005.65)	Reference	
Location	Elevation (ft)	Book	Page
Buick 1931	5.521	060854	32
Chrysler 1931	6.301	060854	33
Chrysler RM 1	6.380	060854	36

Sta	+	HI	−	Elev.
X-374				5.188
	6.660	11.848		
T.P			4.521	7.327
	3.171	10.498		
T.P			5.037	5.461
	4.713	10.174		
T.P			4.621	5.553
	4.300	9.853		
T.P			4.543	5.310
	6.291	11.601		
T.P			5.042	6.559
	5.015	11.574		
~~T.BM~~ (Buick)			6.053	5.521
	4.671	10.192		
T.P			4.818	5.374
	4.403	9.777		
T.P			4.490	5.287
	4.470	9.757		
T.P			5.800	3.957
	5.357	9.314		
T.P			2.850	6.464

Fnd Stainless Steel Rod in 4" PVC Pipe
* Stamped X-374 1985 REF this BK pg 36 For Elev.

Fnd Brass cap set flush with conc. in Sea Wall stamped (BUICK 1931)

Sta	+	HI	-	Elev.
	4.080	10.544		
T.P			4.628	5.916
	4.840	10.756		
~~TBM~~ Chrysler			4.455	6.301
	4.283	10.584		
T.P			4.767	5.817
	4.878	10.695		
T.P			5.343	5.352
	4.438	9.790		
T.P			5.270	4.527
	5.951	10.471		
T.P			5.489	4.982
	5.163	10.145		
T.P			4.635	5.510
	5.896	11.406		
T.P			6.308	5.098
	4.755	9.853		
T.P			4.619	5.234
	4.988	10.222		
T.P			4.451	5.771
	4.855	10.626		
T.P			3.560	7.066
	4.540	11.606		
X-374			6.425	5.181
			Error =	0.007

Fnd Brass cap set Flush with conc. in SEA wall (Stamped Chrysler 1931)

1-21-06

ALCO To X374

Sta	+	HI	−	Elev.
ALCO				6.135
	5.935	12.070		
X 374			6.882	5.188
	7.178	12.3666		
ALCO			6.219	6.147
			Error =	0.012

Tie

Chrysler				6.30
	1.48	7.78		
Chrysler em			1.40	6.38
	1.34	7.72		
Chrysler			1.42	6.30 E
				6.30 S
				0.00 E

See Ah.3 Blk. Pg 53 PID BS1350

PID BS1349

APPENDIX U

IHNC Hydro Multibeam Seabrook Bridge to ICWW
(TG 5a--Storm Surge/Wave Hydrodynamics)

The data for this item has been uploaded to the ftp site in the folder called “IHNC Lake P to ICWW Multibeam.” Due to the size of the dataset it is not included in this section.