Minimum Technical Standards Report
Control Survey &
Specific Purpose Survey for LiDAR

PREPARED FOR:
UNITED STATES GEOLOGICAL SURVEY

PREPARED BY:
NORTHROP GRUMMAN CORPORATION

ATCHAFALAYA 2 LIDAR

CONTRACT # G10PC00150 TO #G12PD00075, MOD. #3

NGC INTERNAL #B1M95819

DATE: 26 JUNE 2013

Technical Standards Report
Control Survey & Specific Purpose Survey for LiDAR

LiDAR Elevation Mapping
Atchafalaya Basin

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Introduction & Specifications

The purpose of this Survey was to provide ground truth data which will be used to validate LiDAR data of the Atchafalaya 2 and Vermillion Bay LiDAR dataset, the area of interest is located in South-Central Louisiana. The ground surveys were conducted utilizing the Gulf-Net VRS network following the USGS LiDAR Base Specification Version 1.0 and the FEMA "*Guidelines and Specifications for Flood Hazard Mapping Partners*" to collect checkpoints for the main categories of ground cover in the study area. The vertical accuracy requirements meet or exceed the required RMSEz of 12.5cm and the vertical accuracy of 24.5cm at the 95% confidence level as specified by the SOW using NDEP/ASPRS methodologies referring to the NDEP_Elevation_Guidelines_Ver1_10May2004 .pdf.

Datum & Coordinate Systems

The LiDAR data and coordinate values associated with this project are referenced to the North American Datum of 1983, Universal Transverse Mercator Coordinate System, Zone 15 North, in units of Meters. The vertical datum is North America Vertical Datum of 1988, in units of Meters. Elevations were derived by using Geoid 12A

Survey Area

The project area is approximately 1650.5 square miles and covers the site of interest: Atchafalaya Basin and Vermillion Bay located in Louisiana. The project area was divided into eighty-seven (87) "Blocks" to facilitate the LiDAR edits.

Control Survey

The GPS survey was tied into the LSU Gulf-Net GPS Real-Time Network located in Louisiana. The Gulf-Net Network is a network of continuously operating GPS reference stations that provides Real Time Kinematic (RTK) capabilities within a Real Time Network (RTN). This allows corrections to be applied to the points as they are being collected, eliminating the need for an adjustment.

As a quality control measure several "check-in" points consisting of NSRS published horizontal and vertical control points were used as checks within the Gulf-Net network. The survey crew checked into these published points daily to validate the consistency of the network. Also to confirm that the project will meet the 5cm local network accuracy at the 95% confidence level.

Local Network Accuracy

Several existing control monuments listed in the NSRS database were used as checks within the Gulf-Net Network. This confirmed network accuracies were being met during the field survey as well as providing a redundancy check on the Gulf-Net Network. The Specified local network accuracy of 5cm at the 95% confidence level was met or exceeded. The results and NSRS published point information are listed within the table below.

Name	Published			Surveyed			Differences		
	Northing	Easting	Elev.	Northing	Easting	Elev.	ΔNorth	ΔEast	ΔElev
57 V 96 (AV0248)	3295203.773	581504.381	0.810	3295203.777	581504.375	0.807	-0.004	0.006	0.003
B 201 (AU0179)	3287482.402	656389.909	2.656	3287482.398	656389.893	2.656	0.004	0.016	0.0
D 394 (DJ9347)	3343449.174	625792.606	9.375	3343449.165	625792.632	9.340	0.009	-0.026	0.035
F 382 (AV0566)	3283320.567	561610.488	1.028	3283320.540	561610.457	1.039	0.027	0.031	-0.011
FOSTER (AU1644)	3285957.397	648753.284	2.093	3285957.365	648753.277	2.093	0.032	0.007	0.0
G 18 (BJ0790)	3366481.468	650007.818	6.228	3366481.468	650007.860	6.202	0.0	-0.042	0.026
H 207 (BJ0026)	3413854.355	627828.471	13.488	3413854.341	627828.500	13.435	0.014	-0.029	0.053
R 277 (BJ2179)	3320000.570	613651.379	5.150	3320000.560	613651.390	5.137	0.010	-0.011	0.013
V 275 (AU 0193)	3288367.350	664364.171	1.960	3288367.317	664364.141	1.922	0.033	0.030	0.038
TV14 SM 06 (DJ9345)	3287595.895	608473.612	0.930	3287595.886	608473.613	0.916	0.009	-0.001	0.014

Ground Truth Survey

Ground Truth data was collected of the major land cover classes present within the area of interest. 30 points were collected in each of the following land cover Bare-Earth, Tall Weeds and Crops, Brush Lands and Trees, Forested and Fully Grown, and Swamp Marsh or Wetlands. Points collected in taller vegetation were collected with a total station by establishing a pair of points during the survey using the Gulf-Net network once completed the total station is used to collect points under the vegetation canopy.

Horizontal Accuracy Analysis

There is not a systematic method of testing when testing horizontal accuracy in LiDAR. The horizontal accuracy is checked by collecting building corners during the survey. Lines are then digitized while viewing the intensity images representing the building outline and the differences are measure from each individual survey point to the corner of the building outline. Stats are calculated to ensure horizontal tolerances are met. These measurements resulted in an RMSEr of 0.39 meters and a horizontal accuracy of 0.68 meter horizontal accuracy at the 95 % confidence interval. Method used was the NSSDA standard for horizontal accuracy assessment.

FGDC-STD-007.3-1998

RMSEnorthing = $\sqrt{[\sum (CONTROLnorthing - MEASUREDnorthing)^2/n]}$

RMSEeasting = $\sqrt{[\sum (CONTROLeasting - MEASUREDeasting)^2/n]}$

RMSEr = $\sqrt{[RMSEeasting^2 + RMSEnorthing^2]}$

RMSE accuracy = 1.7308 * RMSEr

Vertical Accuracy Analysis

Data analysis was accomplished by comparing ground truth checkpoints with LIDAR points from the edited data set, which were within 1 meter horizontally from the ground truth points. Based on the number of returns and the density of points in this project, it was not necessary to compare to anything further away than 1meter horizontally from the ground truth points. Note that the edited LIDAR points are simply a subset of the raw LIDAR points. The points that fell above the ground surface on vegetation canopies, buildings, or other obstructions were removed from the data set. Comparisons were also made between the survey points and the LIDAR derived terrain surface. These comparisons provide an additional verification of the LIDAR data against the survey data. The vertical accuracy requirements meet or exceed the required RMSEz of 12.5cm and the vertical accuracy of 24.5cm at the 95% confidence level

ACCURACYz=1.96 * RMSEz

Table 1- shows the complete results at the 95% confidence interval.

Land Cover Category	# of Points	FVA vs TIN Required 24.5cm	FVA vs DEM Required 24.5cm	SVA vs DEM Target 36.0cm	CVA vs DEM Required 36.0cm
Consolidated All Classes	144				31.8cm
Bare earth (Open Terrain)	30	19.8cm	16.7cm		
Tall weeds and Crops	26			23.6cm	
Brush Lands and Trees	28			47.9cm	
Forested and Fully Grown	30			11.7cm	
Swamp, Marsh , or Wetlands	30			41.5cm	

Appendix A

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**********************************************************************
 AV0566  DESIGNATION -  F 382
 AV0566  PID         -  AV0566
 AV0566  STATE/COUNTY-  LA/VERMILION
 AV0566  COUNTRY     -  US
 AV0566  USGS QUAD   -  PUMPKIN ISLANDS (1979)
 AV0566
 AV0566                        *CURRENT SURVEY CONTROL
 AV0566
______________________________________________________________________
 AV0566* NAD 83(2011) POSITION- 29 40 42.26335(N) 092 21 47.71012(W)
ADJUSTED
 AV0566* NAD 83(2011) ELLIP HT-   -24.812 (meters)        (06/27/12)
ADJUSTED
 AV0566* NAD 83(2011) EPOCH   -  2010.00
 AV0566* NAVD 88 ORTHO HEIGHT -          **(meters)           **(feet) NOT
PUB
 AV0566  **This station is located in a suspected subsidence area (see
below).
 AV0566
______________________________________________________________________
 AV0566  NAD 83(2011) X  -   -228,687.340 (meters)                    COMP
 AV0566  NAD 83(2011) Y  - -5,541,255.676 (meters)                    COMP
 AV0566  NAD 83(2011) Z  -  3,139,439.034 (meters)                    COMP
 AV0566  LAPLACE CORR    -          0.71  (seconds)
DEFLEC12A
 AV0566  GEOID HEIGHT    -        -25.84  (meters)
GEOID12A
 AV0566
 AV0566  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 AV0566  Type                                          Horiz  Ellip  Dist(km)
 AV0566  ----------------------------------------------------------------------
 AV0566  NETWORK                                        0.50   2.20
 AV0566  ----------------------------------------------------------------------
 AV0566  MEDIAN LOCAL ACCURACY AND DIST (057 points)   0.74   3.35     62.85
 AV0566  ----------------------------------------------------------------------
 AV0566  NOTE: Click here for information on individual local accuracy
 AV0566  values and other accuracy information.
 AV0566
 AV0566
 AV0566.The horizontal coordinates were established by GPS observations
 AV0566.and adjusted by the National Geodetic Survey in June 2012.
 AV0566
 AV0566.NAD 83(2011) refers to NAD 83 coordinates where the reference
 AV0566.frame has been affixed to the stable North American tectonic plate.
See
 AV0566.NA2011 for more information.
 AV0566
 AV0566.The horizontal coordinates are valid at the epoch date displayed
above
 AV0566.which is a decimal equivalence of Year/Month/Day.
 AV0566
 AV0566 ** This station is in an area of known vertical motion.  If an
 AV0566 ** orthometric height was ever established but is not available
 AV0566 ** in the current survey control section, the orthometric height
 AV0566 ** is considered suspect.  Suspect heights are available in the
 AV0566 ** superseded section only if requested.
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 AV0566
 AV0566.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
 AV0566
 AV0566.The Laplace correction was computed from DEFLEC12A derived
deflections.
 AV0566
 AV0566.The ellipsoidal height was determined by GPS observations
 AV0566.and is referenced to NAD 83.
 AV0566
 AV0566. The following values were computed from the NAD 83(2011) position.
 AV0566
 AV0566;                     North         East     Units Scale Factor
Converg.
 AV0566;SPC LA S     -   131,068.300   900,315.236   MT  0.99994148   -0 30
53.9
 AV0566;SPC LA S     -   430,013.25  2,953,784.24   sFT  0.99994148   -0 30
53.9
 AV0566;UTM  15      - 3,283,320.567   561,610.488   MT  0.99964683   +0 18
55.0
 AV0566
 AV0566!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AV0566!SPC LA S     -   1.00000390  x   0.99994148  =   0.99994538
 AV0566!UTM  15      -   1.00000390  x   0.99964683  =   0.99965073
 AV0566
 AV0566                          SUPERSEDED SURVEY CONTROL
 AV0566
 AV0566  NAD 83(2007)-  29 40 42.26354(N)    092 21 47.71179(W) AD(       ) 0
 AV0566  ELLIP H (02/10/07)  -24.801  (m)                       GP(       )
 AV0566  NAD 83(1992)-  29 40 42.26345(N)    092 21 47.71143(W) AD(2004.65) B
 AV0566  ELLIP H (06/22/05)  -24.807  (m)                       GP(2004.65) 4
1
 AV0566
 AV0566.Superseded values are not recommended for survey control.
 AV0566
 AV0566.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AV0566.See file dsdata.txt to determine how the superseded data were
derived.
 AV0566
 AV0566_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWN6161083320(NAD 83)
 AV0566
 AV0566_MARKER: F = FLANGE-ENCASED ROD
 AV0566_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 AV0566_SP_SET: STAINLESS STEEL ROD
 AV0566_STAMPING: F 382 1986
 AV0566_MARK LOGO: NGS
 AV0566_PROJECTION: FLUSH
 AV0566_MAGNETIC: N = NO MAGNETIC MATERIAL
 AV0566_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AV0566_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AV0566+SATELLITE: SATELLITE OBSERVATIONS - May 02, 2007
 AV0566_ROD/PIPE-DEPTH: 219  meters
 AV0566
 AV0566  HISTORY     - Date     Condition        Report By
 AV0566  HISTORY     - 1986     MONUMENTED       NGS
 AV0566  HISTORY     - 1987     GOOD             LADTD
 AV0566  HISTORY     - 20040601 GOOD             NGS
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 AV0566  HISTORY     - 20051014 GOOD             NGS
 AV0566  HISTORY     - 20060501 GOOD             NGS
 AV0566  HISTORY     - 20070502 GOOD             NGS
 AV0566
 AV0566                          STATION DESCRIPTION
 AV0566
 AV0566'DESCRIBED BY NATIONAL GEODETIC SURVEY 1986
 AV0566'10.9 KM (6.8 MI) NE FROM PECAN ISLAND.
 AV0566'10.9 KM (6.85 MI) EAST AND NORTHEAST ALONG STATE HIGHWAY 82 FROM THE
 AV0566'PECAN ISLAND SCHOOL IN PECAN ISLAND TO THE MARK ON THE LEFT.  IT IS
 AV0566'13.6 METERS (44.7 FT) WEST OF THE CENTERLINE OF STATE HIGHWAY 82,
11.8
 AV0566'METERS (39.0 FT) NORTH OF A BOARD WALK, 10.2 METERS (33.5 FT)
 AV0566'SOUTHWEST OF THE NORTHEAST END GUARD POST, 8.5 METERS (28.0 FT)
 AV0566'NORTHEAST OF THE NORTHEAST END OF A PLATFORM AND 0.76 METERS (2.5 FT)
 AV0566'WEST OF A GUARD POST.  NOTE--ACCESS TO DATUM POINT IS HAD THROUGH A
 AV0566'5-INCH LOGO CAP.
 AV0566'THE MARK IS .36 METERS  E FROM  A WITNESS POST
 AV0566'THE MARK IS ABOVE LEVEL WITH HIGHWAY.
 AV0566
 AV0566                          STATION RECOVERY (1987)
 AV0566
 AV0566'RECOVERY NOTE BY LA TRANSP AND DEV 1987
 AV0566'RECOVERED IN GOOD CONDITION.
 AV0566
 AV0566                          STATION RECOVERY (2004)
 AV0566
 AV0566'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
 AV0566'RECOVERED AS DESCRIBED.
 AV0566
 AV0566                          STATION RECOVERY (2005)
 AV0566
 AV0566'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (DB)
 AV0566'RECOVERED AS DESCRIBED WITH NEW REFERENCES.  13.6 M WEST OF THE
 AV0566'CENTERLINE OF THE HIGHWAY, 11.9 M NORTH OF THE NORTHEAST END OF A
 AV0566'BOARDWALK, 7.4 M SOUTHWEST OF THE END OF A GUARD POST, 3.1 M OF A
 AV0566'METAL POST WITH A WITNESS SIGN ATTACHED, 0.7 M WEST OF A GUARD POST
 AV0566'STUMP, AND PROJECTS 0.2 M ABOVE THE LEVEL OF THE GROUND.  NOTE--THE
 AV0566'ACCESS COVER IS MISSING AND THE STATION IS NOW LOCATED NEAR THE
CENTER
 AV0566'OF A BOAT RAMP.
 AV0566
 AV0566                          STATION RECOVERY (2006)
 AV0566
 AV0566'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
 AV0566'RECOVERED AS DESCRIBED.
 AV0566
 AV0566                          STATION RECOVERY (2007)
 AV0566
 AV0566'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2007 (DJR)
 AV0566'THE MARK WAS RECOVERED AS DESCRIBED WITH THE FOLLOWING NOTES.
 AV0566'
 AV0566'A CARSONITE WITNESS POST WAS INSTALLED AND THE MARK IS 10 FEET NORTH
 AV0566'OF THE WITNESS POST, THE MARK HAS A SPHERICAL DATUM POINT INSTALLED
 AV0566'WITH WHAT LOOKS TO BE CUTS ON TWO SIDES (POSSIBLY THE ORIGINAL
 AV0566'CRIMPING OF THE DATUM POINT TO THE ROD), TOP OF DATUM POINT PROTRUDES
 AV0566'SLIGHTLY ABOVE THE ACCESS CAP.
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 AV0248  HT_MOD      -  This is a Height Modernization Survey Station.
 AV0248  DESIGNATION -  57 V 96
 AV0248  PID         -  AV0248
 AV0248  STATE/COUNTY-  LA/VERMILION
 AV0248  COUNTRY     -  US
 AV0248  USGS QUAD   -  INTRACOASTAL CITY (1975)
 AV0248
 AV0248                         *CURRENT SURVEY CONTROL
 AV0248
_____________________________________________________________________
 AV0248* NAD 83(2011) POSITION- 29 47 04.17529(N) 092 09 24.36638(W)
ADJUSTED
 AV0248* NAD 83(2011) ELLIP HT-    -25.247 (meters)        (06/27/12)
ADJUSTED
 AV0248* NAD 83(2011) EPOCH    -  2010.00
 AV0248* NAVD 88 ORTHO HEIGHT -     0.81   (meters)       2.7   (feet) GPS
OBS
 AV0248* NAVD 88 EPOCH        -  2009.55
 AV0248  **This station is located in a suspected subsidence area (see
below).
 AV0248
_____________________________________________________________________
 AV0248  GEOID HEIGHT    -        -26.06  (meters)
GEOID12A
 AV0248  NAD 83(2011) X  -   -208,496.651 (meters)                    COMP
 AV0248  NAD 83(2011) Y  - -5,536,215.674 (meters)                    COMP
 AV0248  NAD 83(2011) Z  -  3,149,650.237 (meters)                    COMP
 AV0248  LAPLACE CORR    -          0.51  (seconds)
DEFLEC12A
 AV0248
 AV0248  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 AV0248  Type                                           Horiz  Ellip  Dist(km)
 AV0248  ----------------------------------------------------------------------
 AV0248  NETWORK                                         0.42   1.55
 AV0248  ----------------------------------------------------------------------
 AV0248  MEDIAN LOCAL ACCURACY AND DIST (124 points)   0.59   2.31    119.07
 AV0248  ----------------------------------------------------------------------
 AV0248  NOTE: Click here for information on individual local accuracy
 AV0248  values and other accuracy information.
 AV0248
 AV0248
 AV0248.The horizontal coordinates were established by GPS observations
 AV0248.and adjusted by the National Geodetic Survey in June 2012.
 AV0248
 AV0248.NAD 83(2011) refers to NAD 83 coordinates where the reference
 AV0248.frame has been affixed to the stable North American tectonic plate.
See
 AV0248.NA2011 for more information.
 AV0248
 AV0248.The horizontal coordinates are valid at the epoch date displayed
above
 AV0248.which is a decimal equivalence of Year/Month/Day.
 AV0248
 AV0248 ** This station is in an area of known vertical motion.  Due to the
 AV0248 ** variability of land subsidence, uplift, and crustal motion, NGS
has,
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 AV0248 ** determined the orthometric heights for marks in these suspect
 AV0248 ** subsidence areas should be considered valid only at the epoch date
 AV0248 ** associated with the orthometric height.  These heights must always
 AV0248 ** be validated when used as control.  All previously superseded
 AV0248 ** orthometric heights are now considered suspect and are available
 AV0248 ** in the superseded section.  NGS does not recommend using suspect
 AV0248 ** or superseded heights as control.
 AV0248
 AV0248.The orthometric height was determined by GPS observations and a
 AV0248.high-resolution geoid model using precise GPS observation and
 AV0248.processing techniques.
 AV0248
 AV0248.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
 AV0248
 AV0248.The Laplace correction was computed from DEFLEC12A derived
deflections.
 AV0248
 AV0248.The ellipsoidal height was determined by GPS observations
 AV0248.and is referenced to NAD 83.
 AV0248
 AV0248. The following values were computed from the NAD 83(2011) position.
 AV0248
 AV0248;                     North         East     Units Scale Factor
Converg.
 AV0248;SPC LA S     -   142,665.118   920,384.740   MT  0.99993283   -0 24
42.2
 AV0248;SPC LA S     -   468,060.47  3,019,628.93   sFT  0.99993283   -0 24
42.2
 AV0248;UTM  15      - 3,295,203.773   581,504.381   MT  0.99968196   +0 25
08.0
 AV0248
 AV0248!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AV0248!SPC LA S     -   1.00000397  x   0.99993283  =   0.99993679
 AV0248!UTM  15      -   1.00000397  x   0.99968196  =   0.99968592
 AV0248
 AV0248                           SUPERSEDED SURVEY CONTROL
 AV0248
 AV0248  ELLIP H (10/11/11)  -25.264  (m)                        GP(       ) 4
1
 AV0248  ELLIP H (03/12/08)  -25.233  (m)                        GP(       ) 3
1
 AV0248  NAD 83(2007)-  29 47 04.17551(N)    092 09 24.36806(W) AD(       ) 0
 AV0248  ELLIP H (02/10/07)  -25.246  (m)                        GP(       )
 AV0248  NAD 83(1992)-  29 47 04.17535(N)    092 09 24.36729(W) AD(2004.65) B
 AV0248  ELLIP H (06/22/05)  -25.263  (m)                        GP(2004.65) 4
1
 AV0248  NAVD 88 (03/12/08)    0.97   (m)  UNKNOWN model used   GP(2006.81)
 AV0248  NAVD 88 (06/22/05)    0.98   (m)  GEOID03 model used   GP(2004.65)
 AV0248  NGVD 29 (??/??/??)    1.106  (m)            3.63   (f) ADJUSTED    2
0
 AV0248
 AV0248.Superseded values are not recommended for survey control.
 AV0248
 AV0248.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AV0248.See file dsdata.txt to determine how the superseded data were
derived.
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AV0248
AV0248_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RWN8150495203(NAD 83)
AV0248
AV0248_MARKER: DD = SURVEY DISK
AV0248_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AV0248_SP_SET: SET IN TOP OF CONCRETE MONUMENT
AV0248_STAMPING: 57V96
AV0248_MARK LOGO: LADHGS
AV0248_PROJECTION: PROJECTING 8 CENTIMETERS
AV0248_MAGNETIC: N = NO MAGNETIC MATERIAL
AV0248_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AV0248+STABILITY: SURFACE MOTION
AV0248_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AV0248+SATELLITE: SATELLITE OBSERVATIONS - September 25, 2010
AV0248

AV0248	HISTORY	- Date	Condition	Report By
AV0248	HISTORY	- 1968	MONUMENTED	LADTD
AV0248	HISTORY	- 1968	GOOD	LADTD
AV0248	HISTORY	- 1980	GOOD	LADTD
AV0248	HISTORY	- 1980	GOOD	LADTD
AV0248	HISTORY	- 19910909	GOOD	USPSQD
AV0248	HISTORY	- 20011210	GOOD	NGS
AV0248	HISTORY	- 20040601	GOOD	NGS
AV0248	HISTORY	- 20051014	GOOD	NGS
AV0248	HISTORY	- 20060328	GOOD	NGS
AV0248	HISTORY	- 20070821	GOOD	GCT
AV0248	HISTORY	- 20100925	GOOD	EMCINC

AV0248
AV0248 STATION DESCRIPTION
AV0248
AV0248'DESCRIBED BY LA TRANSP AND DEV 1968
AV0248'5.70 MI SE FROM ESTHER.
AV0248'ABOUT 5.70 MILES SOUTHEAST ALONG LOUISIANA HIGHWAY 333 FROM THE
AV0248'INTERSECTION OF LOUISIANA HIGHWAYS 333 AND 82 IN ESTHER. IN SECTION
AV0248'90, T14S, R3E. 53.0 FEET NORTHWEST OF THE CENTERLINE OF LOUISIANA
AV0248'HIGHWAY 333, 22.4 FEET SOUTHWEST OF A SHELL ROAD LEADING WEST, 43.9
AV0248'FEET EAST OF THE NORTHEAST CORNER OF A WOOD FRAME RESIDENCE BELONGING
AV0248'TO LOVELACE HEBERT, 63.1 FEET SOUTHWEST OF THE SOUTHEAST CORNER OF A
AV0248'WOOD FRAME RESIDENCE BELONGING TO PIERRE LEGE, 0.7 FOOT NORTHEAST OF
A
AV0248'CHAIN-LINK FENCE. SET IN TOP OF A CONCRETE POST PROJECTING 3 INCHES
AV0248'ABOVE THE GROUND. A STEEL WITNESS POST IS SET 1.3 FEET NORTHWEST OF
AV0248'THE MARK.
AV0248
AV0248 STATION RECOVERY (1980)
AV0248
AV0248'RECOVERY NOTE BY LA TRANSP AND DEV 1980
AV0248'ABOUT 5.70 MILES SOUTHEAST ALONG LOUISIANA HIGHWAY 333 FROM THE
AV0248'INTERSECTION OF LOUISIANA HIGHWAYS 333 AND 82 IN ESTHER; IN SECTION
AV0248'90, T 14 S, R 3 E; 60 FEET EAST SOUTHEAST OF A 12 INCH TALLOW TREE,
AV0248'53 FEET NORTH OF THE CENTERLINE OF LOUISIANA HIGHWAY 333, 23 FEET
AV0248'WEST OF THE CENTERLINE OF A BLACKTOP ROAD LEADING NORTH, 24.5
AV0248'NORTHWEST OF THE WEST END OF A 20 INCH CONCRETE CULVERT, 11 FEET
AV0248'NORTHWEST OF A POWER POLE.
AV0248
AV0248 STATION RECOVERY (1980)
AV0248

AV0248'RECOVERY NOTE BY LA TRANSP AND DEV 1980
AV0248'ABOUT 5.70 MILES SOUTHEAST ALONG LOUISIANA HIGHWAY 333 FROM THE
AV0248'INTERSECTION OF LOUISIANA HIGHWAYS 333 AND 82 IN ESTHER; IN SECTION
AV0248'90, T 14 S, R 3 E; 60 FEET EAST SOUTHEAST OF A 12 INCH TALLOW TREE,
AV0248'53 FEET NORTH OF THE CENTERLINE OF LOUISIANA HIGHWAY 333, 23 FEET
AV0248'WEST OF THE CENTERLINE OF A BLACKTOP ROAD LEADING NORTH, 24.5
AV0248'NORTHWEST OF THE WEST END OF A 20 INCH CONCRETE CULVERT, 11 FEET
AV0248'NORTHWEST OF A POWER POLE.
AV0248
AV0248   STATION RECOVERY (1991)
AV0248
AV0248'RECOVERY NOTE BY US POWER SQUADRON 1991 (CRB)
AV0248'RECOVERED IN GOOD CONDITION.
AV0248
AV0248   STATION RECOVERY (2001)
AV0248
AV0248'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2001 (DB)
AV0248'THIS REPORT WAS SUBMITTED BY THE US POWER SQUADRONS.
AV0248
AV0248   STATION RECOVERY (2004)
AV0248
AV0248'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004
AV0248'THE STATION IS LOCATED IN INTRACOASTAL CITY.
AV0248'
AV0248'TO REACH THE STATION FROM THE INTERSECTION OF LA STATE HWYS 82 AND
333
AV0248'GO SOUTHEAST ALONG HWY 333 FOR 5.70 MI TO THE STATION ON THE LEFT
AV0248'JUST BEFORE REACHING OYSTER AVENUE.
AV0248'
AV0248'THE STATION IS LOCATED 60.0 FT SOUTHEAST OF CAJUN DIESEL MARINE, 53.0
AV0248'FT NORTH OF THE CENTERLINE OF THE HWY, 23.0 FT WEST OF THE
CENTERLINE
AV0248'OF OYSTER AVENUE, 11.0 FT NORTHWEST OF A POWER POLE, AND A STEEL
AV0248'WITNESS POST IS DRIVEN AGAINST THE SOUTH FACE OF THE MONUMENT.
AV0248
AV0248   STATION RECOVERY (2005)
AV0248
AV0248'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (DB)
AV0248'RECOVERED AS DESCRIBED WITH THE FOLLOWING ADDITION. 1.0 M SOUTHEAST
AV0248'OF A METAL POST WITH A WITNESS SIGN ATTACHED.
AV0248
AV0248   STATION RECOVERY (2006)
AV0248
AV0248'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
AV0248'RECOVERED AS DESCRIBED.
AV0248
AV0248   STATION RECOVERY (2007)
AV0248
AV0248'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (DAH)
AV0248'RECOVERED IN GOOD CONDITION.
AV0248
AV0248   STATION RECOVERY (2010)
AV0248
AV0248'RECOVERY NOTE BY EMC INCORPORATED 2010 (MDG)
AV0248'RECOVERED AS DESCRIBED.

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**********************************************************************
 AU0179  DESIGNATION -  B 201
 AU0179  PID         -  AU0179
 AU0179  STATE/COUNTY-  LA/ST MARY
 AU0179  COUNTRY     -  US
 AU0179  USGS QUAD   -  NORTH BEND (1994)
 AU0179
 AU0179                        *CURRENT SURVEY CONTROL
 AU0179
_____________________________________________________________________
 AU0179* NAD 83(2011) POSITION- 29 42 27.45802(N) 091 22 59.98208(W)
ADJUSTED
 AU0179* NAD 83(2011) ELLIP HT-   -22.904 (meters)        (06/27/12)
ADJUSTED
 AU0179* NAD 83(2011) EPOCH   -  2010.00
 AU0179* NAVD 88 ORTHO HEIGHT -          **(meters)           **(feet) NOT
PUB
 AU0179  **This station is located in a suspected subsidence area (see
below).
 AU0179
_____________________________________________________________________
 AU0179  NAD 83(2011) X  -   -133,848.234 (meters)                    COMP
 AU0179  NAD 83(2011) Y  - -5,542,753.952 (meters)                    COMP
 AU0179  NAD 83(2011) Z  -  3,142,253.696 (meters)                    COMP
 AU0179  LAPLACE CORR    -          0.14  (seconds)
DEFLEC12A
 AU0179  GEOID HEIGHT    -        -25.56  (meters)
GEOID12A
 AU0179  MODELED GRAVITY -    979,308.5   (mgal)                      NAVD
88
 AU0179
 AU0179  VERT ORDER      -  FIRST     CLASS I (See Below)
 AU0179
 AU0179  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 AU0179  Type                                           Horiz  Ellip  Dist(km)
 AU0179  ----------------------------------------------------------------------
 AU0179  NETWORK                                         0.68   2.63
 AU0179  ----------------------------------------------------------------------
 AU0179  MEDIAN LOCAL ACCURACY AND DIST (065 points)   0.82   3.27     72.08
 AU0179  ----------------------------------------------------------------------
 AU0179  NOTE: Click here for information on individual local accuracy
 AU0179  values and other accuracy information.
 AU0179
 AU0179
 AU0179.The horizontal coordinates were established by GPS observations
 AU0179.and adjusted by the National Geodetic Survey in June 2012.
 AU0179
 AU0179.NAD 83(2011) refers to NAD 83 coordinates where the reference
 AU0179.frame has been affixed to the stable North American tectonic plate.
See
 AU0179.NA2011 for more information.
 AU0179
 AU0179.The horizontal coordinates are valid at the epoch date displayed
above
 AU0179.which is a decimal equivalence of Year/Month/Day.
 AU0179
 AU0179 ** This station is in an area of known vertical motion.  If an
```

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 AU0179 ** orthometric height was ever established but is not available
 AU0179 ** in the current survey control section, the orthometric height
 AU0179 ** is considered suspect.  Suspect heights are available in the
 AU0179 ** superseded section only if requested.
 AU0179
 AU0179.The vertical order pertains to the NGVD 29 superseded value.
 AU0179
 AU0179.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
 AU0179
 AU0179.The Laplace correction was computed from DEFLEC12A derived
deflections.
 AU0179
 AU0179.The ellipsoidal height was determined by GPS observations
 AU0179.and is referenced to NAD 83.
 AU0179
 AU0179.The modeled gravity was interpolated from observed gravity values.
 AU0179
 AU0179. The following values were computed from the NAD 83(2011) position.
 AU0179
 AU0179;                    North         East     Units Scale Factor
Converg.
 AU0179;SPC LA S     -   133,860.216   995,162.385   MT  0.99993876   -0 01
30.0
 AU0179;SPC LA S     -   439,173.06  3,264,961.92   sFT  0.99993876   -0 01
30.0
 AU0179;UTM  15      - 3,287,482.402   656,389.909   MT  0.99990177   +0 48
04.8
 AU0179
 AU0179!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AU0179!SPC LA S     -   1.00000360  x   0.99993876  =   0.99994236
 AU0179!UTM  15      -   1.00000360  x   0.99990177  =   0.99990537
 AU0179
 AU0179|-----------------------------------------------------------------
|
 AU0179| PID    Reference Object                     Distance      Geod. Az
|
 AU0179|                                                           dddmmss.s
|
 AU0179| AI6947 L055                                206.074 METERS 17501
|
 AU0179|-----------------------------------------------------------------
|
 AU0179
 AU0179                          SUPERSEDED SURVEY CONTROL
 AU0179
 AU0179  ELLIP H (03/12/08)  -22.897  (m)                       GP(       ) 3
1
 AU0179  NAD 83(2007)-  29 42 27.45769(N)    091 22 59.98301(W) AD(       ) 0
 AU0179  ELLIP H (02/10/07)  -22.884  (m)                       GP(       )
 AU0179  NAD 83(1992)-  29 42 27.45776(N)    091 22 59.98292(W) AD(2004.65) B
 AU0179  ELLIP H (06/22/05)  -22.889  (m)                       GP(2004.65) 4
1
 AU0179  ELLIP H (02/20/02)  -22.907  (m)                       GP(       ) 4
1
 AU0179  NAD 83(1992)-  29 42 27.45666(N)    091 22 59.97944(W) AD(       ) 1
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 AU0179  ELLIP H (07/31/00)  -22.861  (m)                        GP(       ) 4
1
 AU0179
 AU0179.Superseded values are not recommended for survey control.
 AU0179
 AU0179.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AU0179.See file dsdata.txt to determine how the superseded data were
derived.
 AU0179
 AU0179_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RXN5638987482(NAD 83)
 AU0179
 AU0179_MARKER: DB = BENCH MARK DISK
 AU0179_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AU0179_SP_SET: CONCRETE POST
 AU0179_STAMPING: B 201 1964
 AU0179_MARK LOGO: CGS
 AU0179_PROJECTION: FLUSH
 AU0179_MAGNETIC: N = NO MAGNETIC MATERIAL
 AU0179_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AU0179+STABILITY: SURFACE MOTION
 AU0179_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AU0179+SATELLITE: SATELLITE OBSERVATIONS - April 25, 2009
 AU0179
 AU0179  HISTORY     - Date     Condition        Report By
 AU0179  HISTORY     - 1964     MONUMENTED       CGS
 AU0179  HISTORY     - 1972     GOOD             LADTD
 AU0179  HISTORY     - 1976     GOOD             NGS
 AU0179  HISTORY     - 19930305 GOOD             NGS
 AU0179  HISTORY     - 19991130 GOOD             CDSMS
 AU0179  HISTORY     - 20040426 GOOD             NGS
 AU0179  HISTORY     - 20051014 GOOD             NGS
 AU0179  HISTORY     - 20060427 GOOD             NGS
 AU0179  HISTORY     - 20090425 GOOD             WOOLPT
 AU0179
 AU0179                          STATION DESCRIPTION
 AU0179
 AU0179'DESCRIBED BY LA TRANSP AND DEV 1972
 AU0179'5.2 MI SE FROM CENTERVILLE.
 AU0179'TO REACH THE MONUMENT FROM THE JUNCTION OF US 90 AND LA 317 WHICH IS
 AU0179'AT CENTERVILLE, LA., DRIVE 5.2 MILES SOUTHEAST ALONG US 90.  MONUMENT
 AU0179'WILL BE ON LEFT SIDE OF US 90, 39 FT. N OF CENTERLINE OF US 90, 17.0
 AU0179'FT. SOUTHEAST OF A DRIVEWAY TO A TRAILER PARK.  MONUMENT IS 0.4 FT.
 AU0179'ABOVE GROUND.
 AU0179
 AU0179                          STATION RECOVERY (1976)
 AU0179
 AU0179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1976
 AU0179'5.1 MILES SOUTHEAST ALONG U.S. HIGHWAY 90 FROM THE JUNCTION OF STATE
 AU0179'HIGHWAY 317, 0.8 MILE NORTHWEST OF A BRIDGE OVER THE WAX LAKE OUTLET
 AU0179'CHANNEL, 39.5 FT. NORTHEAST OF THE CENTER LINE OF THE HIGHWAY, 14 FT.
 AU0179'SOUTHEAST OF THE CENTER LINE OF A DRIVE LEADING NORTHEAST INTO A
 AU0179'TRAILER COURT, 28.5 FT. SOUTHEAST OF AND ACROSS THE DRIVEWAY FROM
 AU0179'AN IRON PIPE POST SUPPORTING AN ERNIES TRAILER PARK SIGN. NOTE
 AU0179'THE HIGHWAY IS UNDER CONSTRUCTION AT THIS TIME.
 AU0179
 AU0179                          STATION RECOVERY (1993)
 AU0179
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AU0179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993
AU0179'8.3 KM (5.15 MI) SOUTHEASTERLY ALONG STATE HIGHWAY 182 FROM THE
AU0179'JUNCTION OF STATE HIGHWAY 317 IN CENTERVILLE, 12.1 M (39.7 FT)
AU0179'NORTHEAST OF THE CENTERLINE OF THE HIGHWAY, 8.4 M (27.6 FT) NORTHWEST
AU0179'OF THE NORTH CORNER OF UNDERGROUND CABLE JUNCTION BOX NUMBER 46, 6.0
AU0179'M (19.7 FT) SOUTHEAST OF THE CENTER OF ERNIES LANE, 4.3 M (14.1 FT)
AU0179'NORTH OF A WITNESS POST, 0.3 M (1.0 FT) BELOW THE LEVEL OF THE
AU0179'HIGHWAY, AND THE MONUMENT PROJECTS 0.06 M (0.20 FT) ABOVE THE GROUND
AU0179'SURFACE.
AU0179
AU0179 STATION RECOVERY (1999)
AU0179
AU0179'RECOVERY NOTE BY CDS/MUERY SERVICES 1999 (REG)
AU0179'RECOVERED IN GOOD CONDITION.
AU0179
AU0179 STATION RECOVERY (2004)
AU0179
AU0179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AU0179'THE STATION IS LOCATED ABOUT 4.0 MI SOUTHEAST OF CENTERVILLE IN THE
AU0179'YARD OF A PRIVATE RESIDENCE IN A MOBILE HOME PARK.
AU0179'
AU0179'TO REACH THE STATION FROM THE INTERSECTION OF US HIGHWAY 90 AND STATE
AU0179'HIGHWAY 182 ABOUT 4.1 MI SOUTHEAST OF CENTERVILLE, GO NORTHWESTERLY
AU0179'FOR 0.25 MI ALONG THE STATE HIGHWAY TO THE STATION ON THE RIGHT JUST
AU0179'BEFORE REACHING ERNIES LANE, LEADING TO A MOBILE HOME PARK.
AU0179'
AU0179'THE STATION IS LOCATED 16.7 M NORTHWEST OF THE NORTHWEST CORNER OF A
AU0179'MOBILE HOME NUMBER 18, 12.1 M EAST-NORTHEAST OF THE CENTER OF THE
AU0179'HIGHWAY, 8.6 M NORTH OF THE CENTER OF A METAL UTILITY BOX, 6.3 M
AU0179'SOUTH-SOUTHEAST OF ERNIES LANE, 3.0 M EAST-NORTHEAST OF A CARSONITE
AU0179'WITNESS POST, AND THE MONUMENT IS FLUSH WITH THE LEVEL OF THE
GROUND.
AU0179
AU0179 STATION RECOVERY (2005)
AU0179
AU0179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (DB)
AU0179'RECOVERED AS DESCRIBED.
AU0179
AU0179 STATION RECOVERY (2006)
AU0179
AU0179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
AU0179'RECOVERED AS DESCRIBED.
AU0179
AU0179 STATION RECOVERY (2009)
AU0179
AU0179'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2009 (JPD)
AU0179'RECOVERED AS DESCRIBED

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*********************************************************************
 DJ9347  DESIGNATION -  D 394
 DJ9347  PID         -  DJ9347
 DJ9347  STATE/COUNTY-  LA/ST MARTIN
 DJ9347  COUNTRY     -  US
 DJ9347  USGS QUAD   -  CATAHOULA (1994)
 DJ9347
 DJ9347                        *CURRENT SURVEY CONTROL
 DJ9347
_____________________________________________________________________
 DJ9347* NAD 83(2011) POSITION- 30 12 57.81822(N) 091 41 34.64963(W)
ADJUSTED
 DJ9347* NAD 83(2011) ELLIP HT-   -17.785 (meters)        (06/27/12)
ADJUSTED
 DJ9347* NAD 83(2011) EPOCH   -  2010.00
 DJ9347* NAVD 88 ORTHO HEIGHT -          **(meters)           **(feet) NOT
PUB
 DJ9347  **This station is located in a suspected subsidence area (see
below).
 DJ9347
_____________________________________________________________________
 DJ9347  NAD 83(2011) X  -   -162,968.065 (meters)                    COMP
 DJ9347  NAD 83(2011) Y  - -5,513,818.728 (meters)                    COMP
 DJ9347  NAD 83(2011) Z  -  3,191,084.539 (meters)                    COMP
 DJ9347  LAPLACE CORR    -          0.15  (seconds)
DEFLEC12A
 DJ9347  GEOID HEIGHT    -        -27.16  (meters)
GEOID12A
 DJ9347
 DJ9347  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 DJ9347  Type                                          Horiz  Ellip  Dist(km)
 DJ9347  ----------------------------------------------------------------------
 DJ9347  NETWORK                                        0.58   2.74
 DJ9347  ----------------------------------------------------------------------
 DJ9347  MEDIAN LOCAL ACCURACY AND DIST (069 points)   0.72   3.31     61.49
 DJ9347  ----------------------------------------------------------------------
 DJ9347  NOTE: Click here for information on individual local accuracy
 DJ9347  values and other accuracy information.
 DJ9347
 DJ9347
 DJ9347.The horizontal coordinates were established by GPS observations
 DJ9347.and adjusted by the National Geodetic Survey in June 2012.
 DJ9347
 DJ9347.NAD 83(2011) refers to NAD 83 coordinates where the reference
 DJ9347.frame has been affixed to the stable North American tectonic plate.
See
 DJ9347.NA2011 for more information.
 DJ9347
 DJ9347.The horizontal coordinates are valid at the epoch date displayed
above
 DJ9347.which is a decimal equivalence of Year/Month/Day.
 DJ9347
 DJ9347 ** This station is in an area of known vertical motion.  If an
 DJ9347 ** orthometric height was ever established but is not available
 DJ9347 ** in the current survey control section, the orthometric height
 DJ9347 ** is considered suspect.  Suspect heights are available in the
 DJ9347 ** superseded section only if requested.
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 DJ9347
 DJ9347.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
 DJ9347
 DJ9347.The Laplace correction was computed from DEFLEC12A derived
deflections.
 DJ9347
 DJ9347.The ellipsoidal height was determined by GPS observations
 DJ9347.and is referenced to NAD 83.
 DJ9347
 DJ9347. The following values were computed from the NAD 83(2011) position.
 DJ9347
 DJ9347;                    North         East     Units Scale Factor
Converg.
 DJ9347;SPC LA S     -   190,270.258   965,378.928   MT  0.99993277   -0 10
47.3
 DJ9347;SPC LA S     -   624,245.00  3,167,247.37   sFT  0.99993277   -0 10
47.3
 DJ9347;UTM  15      - 3,343,449.174   625,792.606   MT  0.99979522   +0 39
28.3
 DJ9347
 DJ9347!             -  Elev Factor  x  Scale Factor =   Combined Factor
 DJ9347!SPC LA S     -   1.00000279  x   0.99993277  =   0.99993556
 DJ9347!UTM  15      -   1.00000279  x   0.99979522  =   0.99979801
 DJ9347
 DJ9347                          SUPERSEDED SURVEY CONTROL
 DJ9347
 DJ9347  NAD 83(2007)-  30 12 57.81831(N)    091 41 34.65055(W) AD(2006.81) A
 DJ9347  ELLIP H (03/12/08)  -17.772  (m)                      GP(2006.81) 3
1
 DJ9347
 DJ9347.Superseded values are not recommended for survey control.
 DJ9347
 DJ9347.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 DJ9347.See file dsdata.txt to determine how the superseded data were
derived.
 DJ9347
 DJ9347_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RXP2579243449(NAD 83)
 DJ9347
 DJ9347_MARKER: F = FLANGE-ENCASED ROD
 DJ9347_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
 DJ9347_STAMPING: D 394 2006
 DJ9347_MARK LOGO: NGS
 DJ9347_PROJECTION: FLUSH
 DJ9347_MAGNETIC: N = NO MAGNETIC MATERIAL
 DJ9347_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 DJ9347_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 DJ9347+SATELLITE: SATELLITE OBSERVATIONS - April 15, 2009
 DJ9347_ROD/PIPE-DEPTH: 6    meters
 DJ9347_SLEEVE-DEPTH  : 1 meters
 DJ9347
 DJ9347  HISTORY     - Date     Condition        Report By
 DJ9347  HISTORY     - 20060902 MONUMENTED       NGS
 DJ9347  HISTORY     - 20090415 GOOD             WOOLPT
 DJ9347
 DJ9347                          STATION DESCRIPTION
 DJ9347
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DJ9347'DESCRIBED BY NATIONAL GEODETIC SURVEY 2006
DJ9347'THE STATION IS LOCATED APPROXIMATELY 10 CROW-FLIES MILES (16
DJ9347'KILOMETERS) NORTHEAST OF SAINT MARTINVILLE.
DJ9347'
DJ9347'TO REACH THE STATION FROM THE INTERSECTION OF STATE HIGHWAYS 31 AND
96
DJ9347'IN SAINT MARTINVILLE, GO EAST THEN NORTHEAST ON LA-96 12.1 MI (19.5
DJ9347'KM) TO THE JUNCTION WITH LA-352. TURN RIGHT AND GO 0.1 MILE (0.2 KM)
DJ9347'SOUTH TO A DIRT ROAD. TURN LEFT AND GO TO THE TOP OF THE LEVEE AND
THE
DJ9347'MARK ON THE LEFT ON THE LA-352 SIDE OF THE ROAD THAT RUNS ALONG THE
DJ9347'LEVEE.
DJ9347'
DJ9347'THE MARK IS 41 METERS (136 FEET) EAST OF LA-352 CENTERLINE, 37.3
DJ9347'METERS (122.5 FEET) NORTH OF A NO TRESSPASSING / PRIVATE PROPERTY
SIGN
DJ9347'FOR THE ROAD ON TOP OF THE LEVEE, 17.5 METERS (57.5 FEET) NORTH OF
THE
DJ9347'CENTERLINE OF THE DIRT ROAD THAT GOES OVER THE LEVEE FROM LA 352, 3.3
DJ9347'METERS (11.0 FEET) WEST OF THE CENTERLINE OF THE ROAD ON TOP OF THE
DJ9347'LEVEE, 0.3 METERS (1.0 FEET) NORTH OF A CARSONITE WITNESS POST, AND
DJ9347'0.15 METER (0.5 FEET) NORTH OF A BURIED STEEL ANCHOR LOOP.
DJ9347'
DJ9347'THE MARK IS SET WITHIN A 5 INCH (13 CM) PVC PIPE WITH A LOGO CAP.
DJ9347'SLEEVE DEPTH DOES NOT MEET SPECIFICATIONS FOR A CLASS A MARK.
DJ9347
DJ9347   STATION RECOVERY (2009)
DJ9347
DJ9347'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2009 (JPD)
DJ9347'RECOVERED AS DESCRIBED

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**********************************************************************
 AU1644  DESIGNATION -  FOSTER
 AU1644  PID         -  AU1644
 AU1644  STATE/COUNTY-  LA/ST MARY
 AU1644  COUNTRY     -  US
 AU1644  USGS QUAD   -  NORTH BEND (1994)
 AU1644
 AU1644                        *CURRENT SURVEY CONTROL
 AU1644
_____________________________________________________________________
 AU1644* NAD 83(2011) POSITION- 29 41 41.31280(N) 091 27 44.84462(W)
ADJUSTED
 AU1644* NAD 83(2011) ELLIP HT-   -23.457 (meters)        (06/27/12)
ADJUSTED
 AU1644* NAD 83(2011) EPOCH   -  2010.00
 AU1644* NAVD 88 ORTHO HEIGHT -          **(meters)           **(feet) NOT
PUB
 AU1644  **This station is located in a suspected subsidence area (see
below).
 AU1644
_____________________________________________________________________
 AU1644  NAD 83(2011) X  -   -141,520.893 (meters)                    COMP
 AU1644  NAD 83(2011) Y  - -5,543,267.104 (meters)                    COMP
 AU1644  NAD 83(2011) Z  -  3,141,019.242 (meters)                    COMP
 AU1644  LAPLACE CORR    -          0.47  (seconds)
DEFLEC12A
 AU1644  GEOID HEIGHT    -        -25.55  (meters)
GEOID12A
 AU1644  VERT ORDER      -  FIRST     CLASS II (See Below)
 AU1644
 AU1644  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 AU1644  Type                                          Horiz  Ellip  Dist(km)
 AU1644  ----------------------------------------------------------------------
 AU1644  NETWORK                                        0.66   2.88
 AU1644  ----------------------------------------------------------------------
 AU1644  MEDIAN LOCAL ACCURACY AND DIST (072 points)   0.86   3.82     71.05
 AU1644  ----------------------------------------------------------------------
 AU1644  NOTE: Click here for information on individual local accuracy
 AU1644  values and other accuracy information.
 AU1644
 AU1644
 AU1644.The horizontal coordinates were established by GPS observations
 AU1644.and adjusted by the National Geodetic Survey in June 2012.
 AU1644
 AU1644.NAD 83(2011) refers to NAD 83 coordinates where the reference
 AU1644.frame has been affixed to the stable North American tectonic plate.
See
 AU1644.NA2011 for more information.
 AU1644
 AU1644.The horizontal coordinates are valid at the epoch date displayed
above
 AU1644.which is a decimal equivalence of Year/Month/Day.
 AU1644
 AU1644 ** This station is in an area of known vertical motion.  If an
 AU1644 ** orthometric height was ever established but is not available
 AU1644 ** in the current survey control section, the orthometric height
 AU1644 ** is considered suspect.  Suspect heights are available in the
```

AU1644 ** superseded section only if requested.
AU1644
AU1644.The vertical order pertains to the NGVD 29 superseded value.
AU1644
AU1644.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AU1644
AU1644.The Laplace correction was computed from DEFLEC12A derived deflections.
AU1644
AU1644.The ellipsoidal height was determined by GPS observations
AU1644.and is referenced to NAD 83.
AU1644
AU1644. The following values were computed from the NAD 83(2011) position.
AU1644

		North	East	Units	Scale Factor	Converg.
AU1644;SPC LA S	-	132,445.433	987,504.162	MT	0.99993992	-0 03 52.4
AU1644;SPC LA S	-	434,531.39	3,239,836.57	sFT	0.99993992	-0 03 52.4
AU1644;UTM 15	-	3,285,957.397	648,753.284	MT	0.99987302	+0 45 42.5

AU1644

		Elev Factor	x	Scale Factor	=	Combined Factor
AU1644!SPC LA S	-	1.00000368	x	0.99993992	=	0.99994360
AU1644!UTM 15	-	1.00000368	x	0.99987302	=	0.99987670

AU1644

		Primary Azimuth Mark	Grid Az
AU1644:SPC LA S	-	GERMANIA	029 19 37.6
AU1644:UTM 15	-	GERMANIA	028 30 02.7

AU1644

	PID	Reference Object	Distance	Geod. Az
AU1644				dddmmss.s
AU1644|	AU2412	OAKLAWN SOUTH COAST MILL TANK	APPROX.16.5 KM	0023222.8
AU1644|	AU2414	CENTERVILLE CATHOLIC CH SPIRE	APPROX. 7.8 KM	0243601.5
AU1644|	AU1643	FOSTER RM 1	32.571 METERS	02644
AU1644|	AU2413	GERMANIA	APPROX. 8.6 KM	0291545.2
AU1644|	AU2404	OLD NORTH BEND SUGAR MILL STK	APPROX. 1.6 KM	2175458.0
AU1644|	AU2411	FRANKLIN STERLING MILL TANK	APPROX.12.5 KM	3462622.5
AU1644|	AU2409	ALICE J W FOSTER SUGAR MILL TK	APPROX. 8.4 KM	3490054.1

AU1644
AU1644 SUPERSEDED SURVEY CONTROL
AU1644

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 AU1644  NAD 83(2007)-  29 41 41.31287(N)    091 27 44.84548(W) AD(2006.81) A
 AU1644  ELLIP H (03/12/08)  -23.445  (m)                       GP(2006.81) 3
1
 AU1644  NAD 83(2007)-  29 41 41.31204(N)    091 27 44.84555(W) AD(       ) 0
 AU1644  ELLIP H (02/10/07)  -23.414  (m)                       GP(       )
 AU1644  NAD 83(1992)-  29 41 41.31050(N)    091 27 44.83884(W) AD(       ) 1
 AU1644  ELLIP H (02/20/02)  -23.443  (m)                       GP(       ) 4
1
 AU1644  NAD 83(1992)-  29 41 41.31050(N)    091 27 44.83884(W) AD(       ) 1
 AU1644  ELLIP H (01/21/93)  -23.437  (m)                       GP(       ) 4
2
 AU1644  NAD 83(1986)-  29 41 41.33025(N)    091 27 44.83209(W) AD(       ) 1
 AU1644  NAD 27      -  29 41 40.57862(N)    091 27 44.43741(W) AD(       ) 1
 AU1644
 AU1644.Superseded values are not recommended for survey control.
 AU1644
 AU1644.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AU1644.See file dsdata.txt to determine how the superseded data were
derived.
 AU1644
 AU1644_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RXN4875385957(NAD 83)
 AU1644
 AU1644_MARKER: DS = TRIANGULATION STATION DISK
 AU1644_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AU1644_SP_SET: CONCRETE POST
 AU1644_STAMPING: FOSTER 1931
 AU1644_MARK LOGO: CGS
 AU1644_PROJECTION: FLUSH
 AU1644_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
 AU1644_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AU1644+STABILITY: SURFACE MOTION
 AU1644_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AU1644+SATELLITE: SATELLITE OBSERVATIONS - May 09, 2006
 AU1644
 AU1644  HISTORY     - Date     Condition        Report By
 AU1644  HISTORY     - 1931     MONUMENTED       CGS
 AU1644  HISTORY     - 1934     GOOD             CGS
 AU1644  HISTORY     - 1947     GOOD             CGS
 AU1644  HISTORY     - 1955     GOOD             CGS
 AU1644  HISTORY     - 1957     GOOD             CGS
 AU1644  HISTORY     - 1963     GOOD             CGS
 AU1644  HISTORY     - 19900216 GOOD             GWMSI
 AU1644  HISTORY     - 19910120 GOOD             NOS
 AU1644  HISTORY     - 19921204 GOOD             NOS
 AU1644  HISTORY     - 19991130 GOOD             CDSMS
 AU1644  HISTORY     - 20060509 GOOD             NGS
 AU1644
 AU1644                          STATION DESCRIPTION
 AU1644
 AU1644'DESCRIBED BY COAST AND GEODETIC SURVEY 1931 (FLG)
 AU1644'ABOUT 7 MILES SE OF FRANKLIN AND 6 MILES SW OF CENTERVILLE,
 AU1644'ON THE JOHNSON PLANTATION OWNED BY W.P. FOSTER, OF FRANKLIN.
 AU1644'TO REACH STATION FROM CENTERVILLE FOLLOW THE BAYOU SALE ROAD
 AU1644'(ROUTE 60) 5.7 MILES S TO STATION SITE ABOUT 1/4 MILE N OF
 AU1644'POINT WHERE ROAD MEETS RAILROAD AND TURNS W PARALLELING THE
 AU1644'TRACKS.  STATION IS ON W SIDE OF ROAD OPPOSITE A LOW WATER
 AU1644'TANK AND WINDMILL, ABOUT 100 YARDS S OF OLD STORE BUILDING
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AU1644'WITH A GAS PUMP ON W SIDE OF THE ROAD, ABOUT 175 YARDS W OF
AU1644'A SUGAR-MILL RUIN, ABOUT 40 YARDS NE OF PLANTATION HOUSE
AU1644'WHICH IS IN THE NE CORNER OF YARD, 15 FEET W OF ROAD FENCE,
AU1644'15 FEET S OF AN E-W FENCE, AND 21 PACES NE OF A 6-FOOT LIVE
AU1644'OAK TREE.
AU1644'
AU1644'SURFACE, UNDERGROUND, AND REFERENCE MARKS ARE STANDARD STATION
AU1644'DISKS SET IN CONCRETE.
AU1644'
AU1644'SURFACE MARK PROJECTS 6 INCHES.
AU1644'
AU1644'REFERENCE MARK NO. 1 IS ON E SIDE OF ROAD IN FENCE IN FRONT
AU1644'OF NEGRO SHACK, 100 FEET N OF WINDMILL AND TANK, ABOUT 550
AU1644'PACES N OF RAILROAD TRACKS, NEAR A LOW WATER TANK, AND 106.86
AU1644'FEET FROM STATION N 26 DEG 44 MIN E.
AU1644'
AU1644'B.M. F.-5 (1818) IS 5 PACES S OF RAILROAD TRACKS ON EXTENSION
AU1644'OF TANGENT OF ROAD RUNNING S, 70 PACES S OF CURVE WHERE ROAD
AU1644'TURNS W, 3 FEET E OF RAILROAD-CROSSING SIGN, 100 YARDS W OF
AU1644'SMALL RAILROAD BRIDGE NO. 3G, AND 507 PACES FROM STATION
AU1644'S 16 DEG 04 MIN E.
AU1644'
AU1644'BEARING FROM STATION OF BRICK STACK AT OLD NORTH BEND SUGAR
AU1644'MILL IS S 37 DEG 55 MIN W.
AU1644
AU1644 STATION RECOVERY (1934)
AU1644
AU1644'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1934 (TBR)
AU1644'STATION WAS RECOVERED IN GOOD CONDITION FROM THE ORIGINAL
AU1644'DESCRIPTION. IT IS ON THE FOSTER PLANTATION NOW OWNED BY NELSON
AU1644'BOUDREAUX. IT IS ABOUT 6 MILES S OF CENTERVILLE ON THE W
AU1644'SIDE OF A GRAVEL ROAD (STATE HIGHWAY 60) LEADING S FROM
AU1644'CENTERVILLE. THE STATION IS IN THE NE CORNER OF THE HOUSE
AU1644'LOT, A SHORT DISTANCE S OF AN OLD STORE WITH A GAS PUMP IN
AU1644'FRONT OF IT. IT IS 5.9 METERS W OF THE STREET LINE FENCE,
AU1644'0.6 METERS S OF AN E-W FENCE LINE, 21.2 METERS NE OF A 5-FOOT
AU1644'LIVE OAK TREE AND 34 METERS FROM THE NE CORNER OF THE HOUSE.
AU1644'
AU1644'REFERENCE MARK NO. 1 WAS FOUND IN GOOD CONDITION, IT BEING
AU1644'ON THE E SIDE OF THE ROAD IN FRONT OF A SMALL HOUSE.
AU1644'
AU1644'REFERENCE MARK NO. 2 (B.M. F5 1818) WAS FOUND IN GOOD CONDITION.
AU1644'IT IS 438.3 METERS S OF THE STATION MARK, ON THE CENTER LINE
AU1644'OF THE ROAD, EXTENDED S, LEADING PAST THE STATION, ABOUT 6
AU1644'METERS S OF THE RAILROAD TRACK. THERE IS A RAILROAD BRIDGE,
AU1644'NO. 36, 30 METERS E OF THIS REFERENCE MARK.
AU1644
AU1644 STATION RECOVERY (1947)
AU1644
AU1644'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1947 (RAG)
AU1644'STATION WAS RECOVERED IN GOOD CONDITION AS DESCRIBED WITH THE
AU1644'FOLLOWING EXCEPTIONS--
AU1644'
AU1644'1. REFERENCE MARK 2 (B.M. F5 1818) IS LOOSE IN THE GROUND
AU1644'BUT CANNOT BE REMOVED.
AU1644'
AU1644'2. THE RAILROAD TRACK HAS BEEN REMOVED BUT THE EMBANKMENT

AU1644'IS VISIBLE.
AU1644'
AU1644'3. RAILROAD BRIDGE 36 HAS BEEN REMOVED AND A PLANK FOOTBRIDGE
AU1644'SUBSTITUED FOR IT.
AU1644'
AU1644'DISTANCES TO REFERENCE MARKS WERE MEASURED AND FOUND TO BE
AU1644'CORRECT.
AU1644
AU1644   STATION RECOVERY (1955)
AU1644
AU1644'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1955 (HDR)
AU1644'4.2 MI. SW ALONG STATE HIGHWAY 60 FROM THE TEXAS AND NEW ORLEANS
AU1644'RAILROAD STATION AT BAYOU SALE, 111.2 FT. NE OF THE NE CORNER
AU1644'OF AN ABANDONED HOUSE, 43 FT. W OF THE CENTERLINE OF THE HIGHWAY,
AU1644'37 FT. SE OF THE MORE E ONE OF TWO LARGE PECAN TREES, 7.7 FT.
AU1644'SE OF A POWER POLE, 3.3 FT. N OF A FENCE, A TRIANGULATION-STATION
AU1644'DISK, SET IN THE TOP OF A CONCRETE POST PROJECTING 0.3 FT.
AU1644'ABOVE THE GROUND, AND STAMPED FOSTER 1931.
AU1644'
AU1644'REFERENCE MARK 1 IS 106.7 FT. NE OF THE TRIANGULATION STATION,
AU1644'24 FT. E OF THE CENTERLINE OF THE HIGHWAY, 17 FT. NW OF THE
AU1644'SW CORNER OF AN ABANDONED HOUSE, 2 FT. E OF A WITNESS POST,
AU1644'A REFERENCE-MARK DISK, SET IN THE TOP OF A CONCRETE POST
AU1644'PROJECTING 0.1 FT. ABOVE THE GROUND, AND STAMPED FOSTER NO 1
AU1644'1931.
AU1644
AU1644   STATION RECOVERY (1957)
AU1644
AU1644'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1957 (IRR)
AU1644'THE STATION MARK AND REFERENCE MARKS 1 AND 2 WERE RECOVERED
AU1644'IN GOOD CONDITION. THE PUBLISHED DESCRIPTION IS INADEQUATE,
AU1644'A NEW DESCRIPTION FOLLOWS--
AU1644'
AU1644'THE STATION IS LOCATED 6.1 MILES SW OF CENTERVILLE ALONG
AU1644'LA. HIGHWAY 317. IT IS ON THE WEST SIDE OF HIGHWAY 317 IN
AU1644'THE SE CORNER OF A PASTURE, ABOUT 300 FT. SOUTH OF AN OLD
AU1644'STORE BUILDING, ABOUT 120 FT. NE OF OLD PLANTATION HOUSE,
AU1644'44 FT. WEST OF CENTERLINE OF LA. HIGHWAY 317, AND 18.7 FT.
AU1644'WEST OF FENCE CORNER. IT IS A STANDARD DISK STAMPED, FOSTER
AU1644'1931, SET IN THE TOP OF A 12 INCH SQUARE CONCRETE MONUMENT
AU1644'WHICH PROJECTS 4 IN. ABOVE GROUND.
AU1644'
AU1644'REFERENCE MARK 1 IS ON THE EAST SIDE OF LA. HIGHWAY 317 IN
AU1644'FRONT OF A SMALL HOUSE. IT IS 32 FT. SOUTH OF REA POLE NO.
AU1644'326 23.3 FEET EAST OF CENTERLINE OF HIGHWAY, 7.8 FT. WEST OF
AU1644'WEST EDGE OF PORCH AND IN A FENCE LINE. IT IS A STANDARD
AU1644'DISK STAMPED, FOSTER NO 1 1931, SET IN THE TOP OF A 12 IN.
AU1644'SQUARE CONCRETE MONUMENT WHICH PROJECTS 14 INCHES ABOVE GROUND.
AU1644'
AU1644'REFERENCE MARK 2 (B.M. F-5 1818) IS 438.3 METERS SOUTH OF THE
AU1644'STATION, 98 FT. WEST OF OLD RAILROAD TRESTLE AND 15 FT. SOUTH OF
AU1644'OLD RAILROAD BED. IT IS A STANDARD BENCH MARK DISK STAMPED,
AU1644'F5 1818, SET IN THE TOP OF A 6 INCH SQUARE CONCRETE MONUMENT
AU1644'WHICH PROJECTS 6 INCHES ABOVE GROUND.
AU1644
AU1644   STATION RECOVERY (1963)
AU1644

AU1644'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1963
AU1644'4.2 MI SW FROM BAYOU SALE.
AU1644'LOCATED 4.2 MILES SOUTHWEST ALONG STATE HIGHWAY 317 FROM ITS
AU1644'INTERSECTION WITH THE TEXAS AND NEW ORLEANS RAILROAD AT BAYOU SALE,
AU1644'111.2 FEET NORTHEAST OF THE NORTHEAST CORNER OF A HOUSE, 43 FEET WEST
AU1644'OF THE CENTERLINE OF THE HIGHWAY, 37 FEET SOUTHEAST OF THE MOST
AU1644'EASTERLY OF TWO LARGE PECAN TREES, 8 FEET SOUTHEAST OF A POWER POLE,
AU1644'AND 1 FOOT WEST OF A METAL WITNESS POST. IT IS A STANDARD
AU1644'TRIANGULATION DISK, STAMPED FOSTER 1931 SET IN THE TOP OF A 14-INCH
AU1644'SQUARE CONCRETE POST PROJECTING 3 INCHES.
AU1644
AU1644 STATION RECOVERY (1990)
AU1644
AU1644'RECOVERY NOTE BY GEORGE W MUERY AND SON INCORPORATED 1990
AU1644'RECOVERED IN GOOD CONDITION.
AU1644
AU1644 STATION RECOVERY (1991)
AU1644
AU1644'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1991
AU1644'THE STATION IS LOCATED 6.1 MI (9.82 KM) SOUTHWEST OF CENTERVILLE
AU1644'ON THE WEST SIDE OF HIGHWAY 317.
AU1644'TO REACH THE STATION FROM CENTERVILLE, FOLLOW HIGHWAY 317 SOUTH
AU1644'FOR 5.7 MI (9.17 KM) TO STATION ON RIGHT APPROXIMATELY 0.25 MI
AU1644'(0.40 KM) NORTH OF POINT WHERE ROAD MEETS RAILROAD AND TURNS WEST
AU1644'PARALLELING THE TRACKS.
AU1644'THE STATION IS A STANDARD USCGS DISK STAMPED ---FOSTER 1931---
AU1644'SET IN THE TOP OF A 12 INCH SQUARE CONCRETE MONUMENT WHICH PROJECTS 4
AU1644'INCHES ABOVE THE GROUND. IT IS LOCATED IN THE SOUTHEAST CORNER OF A
AU1644'PASTURE APPROXIMATELY 300 FT (91.44 M) SOUTH OF AN OLD STORE, 120 FT
AU1644'(36.58 M) NORTHEAST OF AN OLD PLANTATION HOUSE, 44 FT (13.41 M) WEST
AU1644'OF THE CENTERLINE OF HIGHWAY 317, AND 18.7 FT (5.70 M) WEST OF A
AU1644'FENCE CORNER.
AU1644'DESCRIBED BY R.P. BUTLER.
AU1644
AU1644 STATION RECOVERY (1992)
AU1644
AU1644'RECOVERY NOTE BY NATIONAL OCEAN SERVICE 1992
AU1644'RECOVERED IN GOOD CONDITION.
AU1644
AU1644 STATION RECOVERY (1999)
AU1644
AU1644'RECOVERY NOTE BY CDS/MUERY SERVICES 1999 (REG)
AU1644'RECOVERY NOTE BY CDS MUERY SERVICES INC (1999)
AU1644'THE TO REACH DESCRIPTION IN THE 1992 DESCRIPTION IS CORRECT BUT THE
AU1644'OLD STORE AND OLD PLANTATION HOUSE NO LONGER EXIST. A NEW RED BRICK
AU1644'HOUSE ADDRESS 2852 LA 317 HAS BEEN BUILT EAST OF THE MONUMENT. THE
AU1644'MONUMENT IS 11.4 FT NORTH OF THE NORTH EDGE OF A NEW CONCRETE
AU1644'DRIVEWAY LEADING TO THE HOUSE, 55 FT EAST OF THE SOUTHEAST CORNER OF
AU1644'HOUSE AND 65.7 FT SOUTHEAST OF THE NORTHEAST CORNER OF HOUSE.
AU1644'
AU1644
AU1644 STATION RECOVERY (2006)
AU1644
AU1644'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
AU1644'RECOVERED IN GOOD CONDITION

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 BJ0790  HT_MOD      -  This is a Height Modernization Survey Station.
 BJ0790  DESIGNATION -  G 18
 BJ0790  PID         -  BJ0790
 BJ0790  STATE/COUNTY-  LA/IBERVILLE
 BJ0790  COUNTRY     -  US
 BJ0790  USGS QUAD   -  GROSSE TETE (1992)
 BJ0790
 BJ0790                         *CURRENT SURVEY CONTROL
 BJ0790
_____________________________________________________________________
 BJ0790* NAD 83(2011) POSITION- 30 25 15.89128(N) 091 26 17.26901(W)
ADJUSTED
 BJ0790* NAD 83(2011) ELLIP HT-   -21.032 (meters)        (06/27/12)
ADJUSTED
 BJ0790* NAD 83(2011) EPOCH   -  2010.00
 BJ0790* NAVD 88 ORTHO HEIGHT -     6.23   (meters)      20.4   (feet) GPS
OBS
 BJ0790* NAVD 88 EPOCH        -  2009.55
 BJ0790  **This station is located in a suspected subsidence area (see
below).
 BJ0790
_____________________________________________________________________
 BJ0790  GEOID HEIGHT    -        -27.26  (meters)
GEOID12A
 BJ0790  NAD 83(2011) X  -   -138,155.327 (meters)                    COMP
 BJ0790  NAD 83(2011) Y  - -5,503,016.543 (meters)                    COMP
 BJ0790  NAD 83(2011) Z  -  3,210,702.456 (meters)                    COMP
 BJ0790  LAPLACE CORR    -          0.76  (seconds)
DEFLEC12A
 BJ0790
 BJ0790  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 BJ0790  Type                                          Horiz  Ellip  Dist(km)
 BJ0790  ----------------------------------------------------------------
 BJ0790  NETWORK                                        0.41   1.53
 BJ0790  ----------------------------------------------------------------
 BJ0790  MEDIAN LOCAL ACCURACY AND DIST (140 points)   0.57   2.27     82.66
 BJ0790  ----------------------------------------------------------------
 BJ0790  NOTE: Click here for information on individual local accuracy
 BJ0790  values and other accuracy information.
 BJ0790
 BJ0790
 BJ0790.The horizontal coordinates were established by GPS observations
 BJ0790.and adjusted by the National Geodetic Survey in June 2012.
 BJ0790
 BJ0790.NAD 83(2011) refers to NAD 83 coordinates where the reference
 BJ0790.frame has been affixed to the stable North American tectonic plate.
See
 BJ0790.NA2011 for more information.
 BJ0790
 BJ0790.The horizontal coordinates are valid at the epoch date displayed
above
 BJ0790.which is a decimal equivalence of Year/Month/Day.
 BJ0790
 BJ0790 ** This station is in an area of known vertical motion.  Due to the
 BJ0790 ** variability of land subsidence, uplift, and crustal motion, NGS
has,
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 BJ0790 ** determined the orthometric heights for marks in these suspect
 BJ0790 ** subsidence areas should be considered valid only at the epoch date
 BJ0790 ** associated with the orthometric height.  These heights must always
 BJ0790 ** be validated when used as control.  All previously superseded
 BJ0790 ** orthometric heights are now considered suspect and are available
 BJ0790 ** in the superseded section.  NGS does not recommend using suspect
 BJ0790 ** or superseded heights as control.
 BJ0790
 BJ0790.The orthometric height was determined by GPS observations and a
 BJ0790.high-resolution geoid model using precise GPS observation and
 BJ0790.processing techniques.
 BJ0790
 BJ0790.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
 BJ0790
 BJ0790.The Laplace correction was computed from DEFLEC12A derived
deflections.
 BJ0790
 BJ0790.The ellipsoidal height was determined by GPS observations
 BJ0790.and is referenced to NAD 83.
 BJ0790
 BJ0790. The following values were computed from the NAD 83(2011) position.
 BJ0790
 BJ0790;                     North         East     Units Scale Factor
Converg.
 BJ0790;SPC LA S     -   212,947.312   989,931.972   MT  0.99995254   -0 03
08.6
 BJ0790;SPC LA S     -   698,644.64  3,247,801.81   sFT  0.99995254   -0 03
08.6
 BJ0790;UTM  15      - 3,366,481.468   650,007.818   MT  0.99987761   +0 47
27.6
 BJ0790
 BJ0790!             -  Elev Factor  x  Scale Factor =   Combined Factor
 BJ0790!SPC LA S     -   1.00000330  x   0.99995254  =   0.99995584
 BJ0790!UTM  15      -   1.00000330  x   0.99987761  =   0.99988091
 BJ0790
 BJ0790                          SUPERSEDED SURVEY CONTROL
 BJ0790
 BJ0790  NAD 83(2007)-  30 25 15.89132(N)    091 26 17.26945(W) AD(2006.81) A
 BJ0790  ELLIP H (03/12/08)  -21.036  (m)                       GP(2006.81) 3
1
 BJ0790  NAVD 88 (03/12/08)    6.29   (m)  GEOID03 model used   GP(2006.81)
 BJ0790  NAVD 88 (02/14/94)    6.421  (m)           21.07   (f) ADJUSTED    1
1
 BJ0790  NGVD 29 (??/??/??)    6.431  (m)           21.10   (f) ADJUSTED    1
1
 BJ0790
 BJ0790.Superseded values are not recommended for survey control.
 BJ0790
 BJ0790.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 BJ0790.See file dsdata.txt to determine how the superseded data were
derived.
 BJ0790
 BJ0790_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RXP5000766481(NAD 83)
 BJ0790
 BJ0790_MARKER: DB = BENCH MARK DISK
 BJ0790_SETTING: 34 = SET IN THE FOOTINGS OF SMALL/MEDIUM STRUCTURES
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BJ0790_SP_SET: OLD SEMAPHORE BASE
BJ0790_STAMPING: G 18 1934
BJ0790_MARK LOGO: CGS
BJ0790_MAGNETIC: N = NO MAGNETIC MATERIAL
BJ0790_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
BJ0790_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BJ0790+SATELLITE: SATELLITE OBSERVATIONS - September 27, 2010
BJ0790

BJ0790	HISTORY	- Date	Condition	Report By
BJ0790	HISTORY	- 1934	MONUMENTED	CGS
BJ0790	HISTORY	- 1965	GOOD	CGS
BJ0790	HISTORY	- 1976	GOOD	NGS
BJ0790	HISTORY	- 20060308	GOOD	AERODA
BJ0790	HISTORY	- 20060518	GOOD	NGS
BJ0790	HISTORY	- 20060718	GOOD	AERODA
BJ0790	HISTORY	- 20060718	GOOD	AERODA
BJ0790	HISTORY	- 20100927	GOOD	GEOMET

BJ0790
BJ0790 STATION DESCRIPTION
BJ0790
BJ0790'DESCRIBED BY COAST AND GEODETIC SURVEY 1965
BJ0790'0.6 MI NNW FROM GROSSE TETE.
BJ0790'ABOUT 0.6 MILE NORTH-NORTHWEST ALONG STATE HIGHWAY 77 FROM THE CASH
BJ0790'MERCHANT STORE AT GROSSE TETE, THENCE 381 FEET WEST SOUTHWEST ALONG
AN
BJ0790'ABANDONED RAILROAD GRADE, IN FRACTIONAL SECTION 36, T 7 S, R 10 E, 23
BJ0790'FEET NORTH NORTHWEST OF THE CENTER LINE OF THE RAILROAD GRADE, ABOUT
BJ0790'18 INCHES ABOVE THE GRADE, AND SET IN THE TOP OF THE WEST-SOUTHWEST
BJ0790'SIDE OF A CONCRETE FOUNDATION OF A SEMAPHORE WHICH HAS BEEN REMOVED.
BJ0790
BJ0790 STATION RECOVERY (1976)
BJ0790
BJ0790'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1976
BJ0790'0.2 MILE NORTH LONG STATE HIGHWAY 77 FROM THE INTERSTATE HIGHWAY
BJ0790'10 WEST BOUND LANES OVERPASS, THENCE 0.1 MILE WEST ALONG A TRACK
BJ0790'ROAD ON AN OLD RAILROAD GRADE, 24.5 FT NORTH OF THE CENTER LINE OF
BJ0790'THE ROAD, 107 FT WEST OF THE NORTH END OF AN IRON PIPE GATE ACROSS
BJ0790'THE ROAD, IN THE TOP OF THE WEST END OF AN OLD SEMAPHORE BASE WHICH
BJ0790'PROJECTS 2 FT ABOVE THE GROUND, 0.9 FT EAST OF THE WEST END OF THE
BJ0790'BASE
BJ0790
BJ0790 STATION RECOVERY (2006)
BJ0790
BJ0790'RECOVERY NOTE BY AERO DATA CORPORATION 2006 (RJG)
BJ0790'0.2 MILE NORTH LONG STATE HIGHWAY 77 FROM THE INTERSTATE HIGHWAY
BJ0790'10 WEST BOUND LANES OVERPASS, THENCE 0.1 MILE WEST ALONG A TRACK
BJ0790'ROAD ON AN OLD RAILROAD GRADE, 23.0 FT NORTH OF THE CENTER LINE OF
BJ0790'THE ROAD, 107 FT EAST OF THE NORTH END OF AN IRON PIPE GATE ACROSS
BJ0790'THE ROAD, IN THE TOP OF THE WEST END OF AN OLD SEMAPHORE BASE WHICH
BJ0790'PROJECTS 2 FT ABOVE THE GROUND, 0.9 FT EAST OF THE WEST END OF THE
BJ0790'BASE
BJ0790
BJ0790 STATION RECOVERY (2006)
BJ0790
BJ0790'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
BJ0790'MARK RECOVERED IN GOOD CONDITION. MARK SETS ON TOP OF SEMAPHORE
WHICH

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BJ0790'IS 2 FT (0.6 M) ABOVE SLOPING GROUND SURFACE.
BJ0790
BJ0790                          STATION RECOVERY (2006)
BJ0790
BJ0790'RECOVERY NOTE BY AERO DATA CORPORATION 2006 (RJG)
BJ0790'USE N30 25 15.89 W091 26 17.27 TO FIND MARK.
BJ0790
BJ0790                          STATION RECOVERY (2006)
BJ0790
BJ0790'RECOVERY NOTE BY AERO DATA CORPORATION 2006 (RJG)
BJ0790'USE N30 25 15.891 W091 26 17.269 TO LOCATE MARK.
BJ0790
BJ0790                          STATION RECOVERY (2010)
BJ0790
BJ0790'RECOVERY NOTE BY GEOMETRICS GPS INCORPORATED 2010 (CCG)
BJ0790'RECOVERED AS DESCRIBED.  NOT VERY GOOD FOR GPS FOR LONG SESSIONS.
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 BJ0026  HT_MOD      -  This is a Height Modernization Survey Station.
 BJ0026  DESIGNATION -  H 207
 BJ0026  PID         -  BJ0026
 BJ0026  STATE/COUNTY-  LA/POINTE COUPEE
 BJ0026  COUNTRY     -  US
 BJ0026  USGS QUAD   -  BATCHELOR (1973)
 BJ0026
 BJ0026                         *CURRENT SURVEY CONTROL
 BJ0026
_________________________________________________________________
 BJ0026* NAD 83(2011) POSITION- 30 51 03.61113(N) 091 39 47.29760(W)
ADJUSTED
 BJ0026* NAD 83(2011) ELLIP HT-    -13.742 (meters)        (06/27/12)
ADJUSTED
 BJ0026* NAD 83(2011) EPOCH    -  2010.00
 BJ0026* NAVD 88 ORTHO HEIGHT -    13.48   (meters)      44.2   (feet) GPS
OBS
 BJ0026
_________________________________________________________________
 BJ0026  NAVD 88 orthometric height was determined with geoid model
GEOID03
 BJ0026  GEOID HEIGHT    -        -27.23  (meters)
GEOID03
 BJ0026  GEOID HEIGHT    -        -27.17  (meters)
GEOID12A
 BJ0026  NAD 83(2011) X  -   -159,060.534 (meters)                    COMP
 BJ0026  NAD 83(2011) Y  - -5,478,160.158 (meters)                    COMP
 BJ0026  NAD 83(2011) Z  -  3,251,715.862 (meters)                    COMP
 BJ0026  LAPLACE CORR    -         -0.31  (seconds)
DEFLEC12A
 BJ0026
 BJ0026  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 BJ0026  Type                                           Horiz  Ellip  Dist(km)
 BJ0026  ----------------------------------------------------------------------
 BJ0026  NETWORK                                         0.74   4.29
 BJ0026  ----------------------------------------------------------------------
 BJ0026  MEDIAN LOCAL ACCURACY AND DIST (004 points)   0.66   3.95      5.92
 BJ0026  ----------------------------------------------------------------------
 BJ0026  NOTE: Click here for information on individual local accuracy
 BJ0026  values and other accuracy information.
 BJ0026
 BJ0026
 BJ0026.The horizontal coordinates were established by GPS observations
 BJ0026.and adjusted by the National Geodetic Survey in June 2012.
 BJ0026
 BJ0026.NAD 83(2011) refers to NAD 83 coordinates where the reference
 BJ0026.frame has been affixed to the stable North American tectonic plate.
See
 BJ0026.NA2011 for more information.
 BJ0026
 BJ0026.The horizontal coordinates are valid at the epoch date displayed
above
 BJ0026.which is a decimal equivalence of Year/Month/Day.
 BJ0026
 BJ0026.The orthometric height was determined by GPS observations and a
 BJ0026.high-resolution geoid model using precise GPS observation and
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 BJ0026.processing techniques.
 BJ0026
 BJ0026.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
 BJ0026
 BJ0026.The Laplace correction was computed from DEFLEC12A derived
deflections.
 BJ0026
 BJ0026.The ellipsoidal height was determined by GPS observations
 BJ0026.and is referenced to NAD 83.
 BJ0026
 BJ0026. The following values were computed from the NAD 83(2011) position.
 BJ0026
 BJ0026;                    North         East     Units Scale Factor
Converg.
 BJ0026;SPC LA S     -   260,650.164   968,452.281   MT  1.00003560   -0 09
53.7
 BJ0026;SPC LA S     -   855,149.75  3,177,330.53   sFT  1.00003560   -0 09
53.7
 BJ0026;UTM  15      - 3,413,854.355   627,828.471   MT  0.99980156   +0 41
08.3
 BJ0026
 BJ0026!             -  Elev Factor  x  Scale Factor =   Combined Factor
 BJ0026!SPC LA S     -   1.00000216  x   1.00003560  =   1.00003776
 BJ0026!UTM  15      -   1.00000216  x   0.99980156  =   0.99980372
 BJ0026
 BJ0026                          SUPERSEDED SURVEY CONTROL
 BJ0026
 BJ0026  NAD 83(2007)-  30 51 03.61108(N)    091 39 47.29829(W) AD(       ) 0
 BJ0026  ELLIP H (02/10/07)  -13.728  (m)                       GP(       )
 BJ0026  NAD 83(1992)-  30 51 03.61107(N)    091 39 47.29792(W) AD(       ) B
 BJ0026  ELLIP H (05/09/05)  -13.736  (m)                       GP(       ) 4
2
 BJ0026  NAVD 88 (05/09/05)   13.56   (m)  USGG200 model used   GPS OBS
 BJ0026  NAVD 88 (02/14/94)   13.467  (m)           44.18   (f) ADJUSTED    1
1
 BJ0026  NAVD 88 (06/15/91)   13.498  (m)           44.28   (f) SUPERSEDED  1
1
 BJ0026  NGVD 29 (??/??/??)   13.456  (m)           44.15   (f) ADJUSTED    1
1
 BJ0026
 BJ0026.Superseded values are not recommended for survey control.
 BJ0026
 BJ0026.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 BJ0026.See file dsdata.txt to determine how the superseded data were
derived.
 BJ0026
 BJ0026_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RXQ2782813854(NAD 83)
 BJ0026
 BJ0026_MARKER: DD = SURVEY DISK
 BJ0026_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 BJ0026_SP_SET: SET IN TOP OF CONCRETE MONUMENT
 BJ0026_STAMPING: H 207 1964
 BJ0026_MAGNETIC: O = OTHER; SEE DESCRIPTION
 BJ0026_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 BJ0026+STABILITY: SURFACE MOTION
 BJ0026_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
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BJ0026+SATELLITE: SATELLITE OBSERVATIONS - March 06, 2009
BJ0026
BJ0026 HISTORY   - Date   Condition   Report By
BJ0026 HISTORY   - 1964   MONUMENTED   CGS
BJ0026 HISTORY   - 1976   GOOD   NGS
BJ0026 HISTORY   - 20030701 GOOD   3001
BJ0026 HISTORY   - 20090306 GOOD   WOOLPT
BJ0026
BJ0026   STATION DESCRIPTION
BJ0026
BJ0026'DESCRIBED BY COAST AND GEODETIC SURVEY 1964
BJ0026'3.8 MI NW FROM LACOUR.
BJ0026'ABOUT 3.8 MILES NORTHWEST ALONG STATE ROAD 419 FROM THE GENERAL STORE
BJ0026'AT LACOUR, OR ABOUT 1.5 MILES SOUTH ALONG STATE ROAD 418 FROM THE ST.
BJ0026'STEPHENS CHURCH AT WILLIAMSPORT, THENCE 1.95 MILES SOUTH ALONG STATE
BJ0026'ROAD 419, 25 FEET NORTHEAST OF THE CENTER LINE OF THE ROAD, 142 FEET
BJ0026'SOUTHWEST OF THE CENTER LINE OF A LEVEE, 1 1/2 FEET NORTHEAST OF A
BJ0026'FENCE, 1.8 FEET NORTH OF A WOODEN WITNESS POST, ABOUT LEVEL WITH THE
BJ0026'ROAD, AND SET IN THE TOP OF A CONCRETE POST PROJECTING 6 INCHES.
BJ0026
BJ0026   STATION RECOVERY (1976)
BJ0026
BJ0026'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1976
BJ0026'1.4 MILES SOUTH ALONG STATE HIGHWAY 418 FROM THE ST STEPHENS CHURCH
AT
BJ0026'WILLIAMSPORT, THENCE 2 MILES SOUTHEAST ALONG STATE HIGHWAY 419, 28 FT
BJ0026'EAST OF THE NORTHEAST END OF A 24 INCH CONCRETE PIPE CULVERT, 24 FT
BJ0026'NORTHEAST OF THE CENTER LINE OF THE HIGHWAY.
BJ0026
BJ0026   STATION RECOVERY (2003)
BJ0026
BJ0026'RECOVERY NOTE BY 3001, INC 2003 (DW)
BJ0026'THE STATION IS LOCATED IN POINT COUPEE PARISH NEAR BATCHELOR, LA 17.1
BJ0026'MILES NORTHWEST OF NEW ROADS, 8.8 MILS NORTH NORTHWEST OF MORGANZA,
BJ0026'12.5 MILES SOUTHEAST OF SIMMSPORT.
BJ0026'
BJ0026'OWNERSHIP- COE
BJ0026'
BJ0026'TO REACH THE STATION FROM THE INTERSECTION OF LA HWY 1 AND LA HWY 419
BJ0026'IN BATCHELOR GO EAST ON 419 FOR 0.45 MILES TO CLAIBORNE RD GO NORTH
BJ0026'NORTHEAST 0.8 MILES TO MARK ON RIGHT.
BJ0026'
BJ0026'THE STATION IS A BRONZE DISK SET IN CONCRETE 24.8' NORTHEAST OF
BJ0026'CENTERLINE OF RD, 143 FT SOUTH WEST OF CENTERLINE OF LEVEE. 1.8'
EAST
BJ0026'OF METAL WITNEDD POST.
BJ0026
BJ0026   STATION RECOVERY (2009)
BJ0026
BJ0026'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2009 (JPD)
BJ0026'RECOVERED AS DESCRIBED

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 BJ2179  HT_MOD      -  This is a Height Modernization Survey Station.
 BJ2179  DESIGNATION -  R 277
 BJ2179  PID         -  BJ2179
 BJ2179  STATE/COUNTY-  LA/IBERIA
 BJ2179  COUNTRY     -  US
 BJ2179  USGS QUAD   -  NEW IBERIA NORTH (1983)
 BJ2179
 BJ2179                         *CURRENT SURVEY CONTROL
 BJ2179
_____________________________________________________________________
 BJ2179* NAD 83(2011) POSITION- 30 00 20.49055(N) 091 49 17.76459(W)
ADJUSTED
 BJ2179* NAD 83(2011) ELLIP HT-    -21.530 (meters)        (06/27/12)
ADJUSTED
 BJ2179* NAD 83(2011) EPOCH    -  2010.00
 BJ2179* NAVD 88 ORTHO HEIGHT -     5.15   (meters)      16.9   (feet) GPS
OBS
 BJ2179* NAVD 88 EPOCH         -  2009.55
 BJ2179  **This station is located in a suspected subsidence area (see
below).
 BJ2179
_____________________________________________________________________
 BJ2179  GEOID HEIGHT    -        -26.67  (meters)
GEOID12A
 BJ2179  NAD 83(2011) X  -   -175,719.302 (meters)                    COMP
 BJ2179  NAD 83(2011) Y  - -5,525,128.940 (meters)                    COMP
 BJ2179  NAD 83(2011) Z  -  3,170,909.374 (meters)                    COMP
 BJ2179  LAPLACE CORR    -          0.14  (seconds)
DEFLEC12A
 BJ2179
 BJ2179  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 BJ2179  Type                                          Horiz  Ellip  Dist(km)
 BJ2179  ----------------------------------------------------------------
 BJ2179  NETWORK                                        0.37   1.45
 BJ2179  ----------------------------------------------------------------
 BJ2179  MEDIAN LOCAL ACCURACY AND DIST (109 points)   0.53   2.12     74.96
 BJ2179  ----------------------------------------------------------------
 BJ2179  NOTE: Click here for information on individual local accuracy
 BJ2179  values and other accuracy information.
 BJ2179
 BJ2179
 BJ2179.The horizontal coordinates were established by GPS observations
 BJ2179.and adjusted by the National Geodetic Survey in June 2012.
 BJ2179
 BJ2179.NAD 83(2011) refers to NAD 83 coordinates where the reference
 BJ2179.frame has been affixed to the stable North American tectonic plate.
See
 BJ2179.NA2011 for more information.
 BJ2179
 BJ2179.The horizontal coordinates are valid at the epoch date displayed
above
 BJ2179.which is a decimal equivalence of Year/Month/Day.
 BJ2179
 BJ2179 ** This station is in an area of known vertical motion.  Due to the
 BJ2179 ** variability of land subsidence, uplift, and crustal motion, NGS
has,
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 BJ2179 ** determined the orthometric heights for marks in these suspect
 BJ2179 ** subsidence areas should be considered valid only at the epoch date
 BJ2179 ** associated with the orthometric height.  These heights must always
 BJ2179 ** be validated when used as control.  All previously superseded
 BJ2179 ** orthometric heights are now considered suspect and are available
 BJ2179 ** in the superseded section.  NGS does not recommend using suspect
 BJ2179 ** or superseded heights as control.
 BJ2179
 BJ2179.The orthometric height was determined by GPS observations and a
 BJ2179.high-resolution geoid model using precise GPS observation and
 BJ2179.processing techniques.
 BJ2179
 BJ2179.Photographs are available for this station.
 BJ2179
 BJ2179.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
 BJ2179
 BJ2179.The Laplace correction was computed from DEFLEC12A derived
deflections.
 BJ2179
 BJ2179.The ellipsoidal height was determined by GPS observations
 BJ2179.and is referenced to NAD 83.
 BJ2179
 BJ2179. The following values were computed from the NAD 83(2011) position.
 BJ2179
 BJ2179;                     North         East     Units Scale Factor
Converg.
 BJ2179;SPC LA S     -   166,997.676   952,895.172   MT  0.99992575   -0 14
38.9
 BJ2179;SPC LA S     -   547,891.54  3,126,290.24   sFT  0.99992575   -0 14
38.9
 BJ2179;UTM  15      - 3,320,000.570   613,651.379   MT  0.99975936   +0 35
21.7
 BJ2179
 BJ2179!             -  Elev Factor  x  Scale Factor =   Combined Factor
 BJ2179!SPC LA S     -   1.00000338  x   0.99992575  =   0.99992913
 BJ2179!UTM  15      -   1.00000338  x   0.99975936  =   0.99976274
 BJ2179
 BJ2179                          SUPERSEDED SURVEY CONTROL
 BJ2179
 BJ2179  ELLIP H (10/11/11)  -21.535  (m)                      GP(       ) 4
1
 BJ2179  ELLIP H (03/12/08)  -21.520  (m)                      GP(       ) 3
1
 BJ2179  NAD 83(2007)-  30 00 20.49085(N)    091 49 17.76570(W) AD(       ) 0
 BJ2179  ELLIP H (02/10/07)  -21.543  (m)                      GP(       )
 BJ2179  NAD 83(1992)-  30 00 20.49072(N)    091 49 17.76506(W) AD(2004.65) B
 BJ2179  ELLIP H (06/22/05)  -21.551  (m)                      GP(2004.65) 4
1
 BJ2179  NAVD 88 (03/12/08)    5.28   (m)  UNKNOWN model used   GP(2006.81)
 BJ2179  NAVD 88 (06/22/05)    5.28   (m)           17.3    (f) LEVELING    3
 BJ2179  NAVD 88 (02/14/94)    5.333  (m)           17.50   (f) ADJUSTED    1
1
 BJ2179  NAVD 88 (06/15/91)    5.347  (m)           17.54   (f) SUPERSEDED  1
1
 BJ2179  NGVD 29 (??/??/??)    5.348  (m)           17.55   (f) ADJUSTED    1
1
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BJ2179
BJ2179.Superseded values are not recommended for survey control.
BJ2179
BJ2179.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
BJ2179.See file dsdata.txt to determine how the superseded data were derived.
BJ2179
BJ2179_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RXP1365120000(NAD 83)
BJ2179
BJ2179_MARKER: DB = BENCH MARK DISK
BJ2179_SETTING: 46 = COPPER-CLAD STEEL ROD W/O SLEEVE (10 FT.+)
BJ2179_SP_SET: 45.5 FEET
BJ2179_STAMPING: R 277 1969
BJ2179_MARK LOGO: CGS
BJ2179_PROJECTION: RECESSED 10 CENTIMETERS
BJ2179_MAGNETIC: I = MARKER IS A STEEL ROD
BJ2179_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
BJ2179_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
BJ2179+SATELLITE: SATELLITE OBSERVATIONS - September 18, 2010
BJ2179_ROD/PIPE-DEPTH: 13.9 meters
BJ2179

BJ2179	HISTORY	- Date	Condition	Report By
BJ2179	HISTORY	- 1969	MONUMENTED	CGS
BJ2179	HISTORY	- 1970	GOOD	NGS
BJ2179	HISTORY	- 1982	GOOD	NGS
BJ2179	HISTORY	- 20040428	GOOD	NGS
BJ2179	HISTORY	- 20051017	GOOD	NGS
BJ2179	HISTORY	- 20060416	GOOD	NGS
BJ2179	HISTORY	- 20080924	GOOD	JCLS
BJ2179	HISTORY	- 20090418	GOOD	WOOLPT
BJ2179	HISTORY	- 20100116	GOOD	GEOCAC
BJ2179	HISTORY	- 20100918	GOOD	EMCINC

BJ2179
BJ2179 STATION DESCRIPTION
BJ2179
BJ2179'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970
BJ2179'0.25 MI SE FROM NEW IBERIA.
BJ2179'ABOUT 0.25 MILE SOUTHEAST ALONG THE SOUTHERN PACIFIC RAILROAD FROM THE
BJ2179'STATION AT NEW IBERIA, AT THE CROSSING OF THE RAILROAD AND FRENCH
BJ2179'STREET, 13 1/2 FEET SOUTHWEST OF THE SOUTHWEST RAIL, 46 FEET WEST OF
BJ2179'THE CENTER OF THE INTERSECTION OF FRENCH STREET AND WASHINGTON STREET,
BJ2179'20.6 FEET NORTHWEST OF THE NORTHWEST CURB OF FRENCH STREET, 16 FEET
BJ2179'NORTHWEST OF A METAL CORNER FENCE POST IN A CHAIN LINK FENCE AROUND A
BJ2179'CEMETERY, 0.6 FOOT NORTHEAST OF A CHAIN LINK FENCE, 0.5 FOOT NORTHEAST
BJ2179'OF A METAL WITNESS POST, ABOUT LEVEL WITH THE TRACK, AND ON THE TOP OF
BJ2179'A 5/8-INCH COPPER COATED ROD THAT IS DRIVEN TO A DEPTH OF 45.5 FEET
BJ2179'AND IS ENCASED IN A 4-INCH IRON PIPE WHICH IS LEVEL WITH THE SURFACE
BJ2179'OF THE GROUND.
BJ2179
BJ2179 STATION RECOVERY (1982)
BJ2179
BJ2179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1982
BJ2179'RECOVERED IN GOOD CONDITION.

BJ2179
BJ2179 STATION RECOVERY (2004)
BJ2179
BJ2179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
BJ2179'THE STATION IS LOCATED IN NEW IBERIA NEAR THE INTERSECTION OF FRENCH
BJ2179'AND E WASHINGTON STREETS.
BJ2179'
BJ2179'TO REACH THE STATION FROM THE INTERSECTION OF STATE HIGHWAYS 14 AND
BJ2179'674 IN NEW IBERIA GO NORTHEAST FOR 1.15 MI ALONG STATE HIGHWAY 14 TO
BJ2179'THE INTERSECTION OF E WASHINGTON STREET, AT A RAIL ROAD CROSSING,
BJ2179'TURN LEFT AND GO NORTHWEST FOR 0.35 MI ALONG E WASHINGTON STREET TO
BJ2179'THE STATION ON THE LEFT, JUST HAVING CROSSED FRENCH STREET AND NEAR
BJ2179'THE EAST CORNER OF A CEMETARY.
BJ2179'
BJ2179'THE STATION IS LOCATED 10.4 M NORTHWEST OF THE CENTER OF FRENCH
BJ2179'STREET, 5.7 M SOUTHWEST OF THE NEAR RAIL, 4.9 M NORTHWEST OF A CHAIN
BJ2179'LINK FENCE CORNER, 0.2 M NORTHEAST OF A CHAIN LINK FENCE AND A METAL
BJ2179'POST WITH A WITNESS POST ATTACHED, AND THE DISK IS RECESSED ABOUT 0.1
BJ2179'M BELOW THE LEVEL OF THE GROUND SURFACE.
BJ2179
BJ2179 STATION RECOVERY (2005)
BJ2179
BJ2179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (JBW)
BJ2179'RECOVERED IN GOOD CONDITION.
BJ2179
BJ2179 STATION RECOVERY (2006)
BJ2179
BJ2179'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
BJ2179'RECOVERED AS DESCRIBED.
BJ2179
BJ2179 STATION RECOVERY (2008)
BJ2179
BJ2179'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2008
BJ2179'RECOVERED IN GOOD CONDITION.
BJ2179
BJ2179 STATION RECOVERY (2009)
BJ2179
BJ2179'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2009 (JPD)
BJ2179'RECOVERED AS DESCRIBED
BJ2179
BJ2179 STATION RECOVERY (2010)
BJ2179
BJ2179'RECOVERY NOTE BY GEOCACHING 2010 (LPC)
BJ2179'RECOVERED IN GOOD CONDITION.
BJ2179
BJ2179 STATION RECOVERY (2010)
BJ2179
BJ2179'RECOVERY NOTE BY EMC INCORPORATED 2010 (MDG)
BJ2179'RECOVERED AS DESCRIBED.

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 AU0193  DESIGNATION -  V 275
 AU0193  PID         -  AU0193
 AU0193  STATE/COUNTY-  LA/ST MARY
 AU0193  COUNTRY     -  US
 AU0193  USGS QUAD   -  PATTERSON (1994)
 AU0193
 AU0193                        *CURRENT SURVEY CONTROL
 AU0193
______________________________________________________________________
 AU0193* NAD 83(2011) POSITION- 29 42 52.48270(N) 091 18 02.84359(W)
ADJUSTED
 AU0193* NAD 83(2011) ELLIP HT-   -23.625 (meters)        (06/27/12)
ADJUSTED
 AU0193* NAD 83(2011) EPOCH   -  2010.00
 AU0193* NAVD 88 ORTHO HEIGHT -     1.96   (meters)       6.4   (feet)
LEVELING
 AU0193* NAVD 88 EPOCH        -  2009.55
 AU0193  **This station is located in a suspected subsidence area (see
below).
 AU0193  **This station is included in the VTDP model (see below).
 AU0193
______________________________________________________________________
 AU0193  GEOID HEIGHT    -        -25.58  (meters)
GEOID12A
 AU0193  NAD 83(2011) X  -   -125,854.700 (meters)                    COMP
 AU0193  NAD 83(2011) Y  - -5,542,558.594 (meters)                    COMP
 AU0193  NAD 83(2011) Z  -  3,142,922.573 (meters)                    COMP
 AU0193  LAPLACE CORR    -          0.14  (seconds)
DEFLEC12A
 AU0193  VERT ORDER      -  THIRD
 AU0193
 AU0193  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 AU0193  Type                                          Horiz  Ellip  Dist(km)
 AU0193  ----------------------------------------------------------------
 AU0193  NETWORK                                        0.39   1.65
 AU0193  ----------------------------------------------------------------
 AU0193  MEDIAN LOCAL ACCURACY AND DIST (113 points)   0.54   2.23     80.19
 AU0193  ----------------------------------------------------------------
 AU0193  NOTE: Click here for information on individual local accuracy
 AU0193  values and other accuracy information.
 AU0193
 AU0193
 AU0193.The horizontal coordinates were established by GPS observations
 AU0193.and adjusted by the National Geodetic Survey in June 2012.
 AU0193
 AU0193.NAD 83(2011) refers to NAD 83 coordinates where the reference
 AU0193.frame has been affixed to the stable North American tectonic plate.
See
 AU0193.NA2011 for more information.
 AU0193
 AU0193.The horizontal coordinates are valid at the epoch date displayed
above
 AU0193.which is a decimal equivalence of Year/Month/Day.
 AU0193
 AU0193 ** This station is in an area of known vertical motion.  Due to the
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 AU0193 ** variability of land subsidence, uplift, and crustal motion, NGS
has,
 AU0193 ** determined the orthometric heights for marks in these suspect
 AU0193 ** subsidence areas should be considered valid only at the epoch date
 AU0193 ** associated with the orthometric height.  These heights must always
 AU0193 ** be validated when used as control.  All previously superseded
 AU0193 ** orthometric heights are now considered suspect and are available
 AU0193 ** in the superseded section.  NGS does not recommend using suspect
 AU0193 ** or superseded heights as control.
 AU0193
 AU0193 ** The orthometric height was determined with a Vertical Time-
dependent
 AU0193 ** Positioning (VTDP) model and has been validated through GNSS
 AU0193 ** observations for the epoch indicated.  For additional
 AU0193 ** information on VTDP, please refer to the following web pages:
 AU0193 ** www.ngs.noaa.gov/heightmod/GulfCoastProject.shtml
 AU0193 ** www.ngs.noaa.gov/heightmod/NOAANOSNGSTR50.pdf
 AU0193
 AU0193.WARNING-GPS observations at this control monument resulted in a GPS
 AU0193.derived orthometric height which differed from the leveled height by
 AU0193.more than one decimeter (0.1 meter).
 AU0193.Photographs are available for this station.
 AU0193
 AU0193.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
 AU0193
 AU0193.The Laplace correction was computed from DEFLEC12A derived
deflections.
 AU0193
 AU0193.The ellipsoidal height was determined by GPS observations
 AU0193.and is referenced to NAD 83.
 AU0193
 AU0193. The following values were computed from the NAD 83(2011) position.
 AU0193
 AU0193;                    North         East     Units Scale Factor
Converg.
 AU0193;SPC LA S     -   134,630.096 1,003,148.748   MT  0.99993815   +0 00
58.6
 AU0193;SPC LA S     -   441,698.91  3,291,163.85   sFT  0.99993815   +0 00
58.6
 AU0193;UTM  15      - 3,288,367.350   664,364.171   MT  0.99993334   +0 50
32.8
 AU0193
 AU0193!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AU0193!SPC LA S     -   1.00000371  x   0.99993815  =   0.99994186
 AU0193!UTM  15      -   1.00000371  x   0.99993334  =   0.99993705
 AU0193
 AU0193                          SUPERSEDED SURVEY CONTROL
 AU0193
 AU0193  ELLIP H (10/11/11)  -23.647  (m)                      GP(       ) 4
1
 AU0193  ELLIP H (03/12/08)  -23.601  (m)                      GP(       ) 3
1
 AU0193  NAD 83(2007)-  29 42 52.48272(N)    091 18 02.84450(W) AD(       ) 0
 AU0193  ELLIP H (02/10/07)  -23.591  (m)                      GP(       )
 AU0193  NAD 83(1992)-  29 42 52.48273(N)    091 18 02.84424(W) AD(2004.65) B
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 AU0193  ELLIP H (06/22/05)  -23.603  (m)                        GP(2004.65) 4
1
 AU0193  NAVD 88 (03/12/08)    1.97   (m)  UNKNOWN model used   GP(2006.81)
 AU0193  NAVD 88 (06/22/05)    2.00   (m)  GEOID03 model used   GP(2004.65)
 AU0193  NAVD 88 (02/14/94)    2.247  (m)            7.37   (f) ADJUSTED    1
1
 AU0193  NAVD 88 (06/15/91)    2.312  (m)            7.59   (f) SUPERSEDED  1
1
 AU0193  NGVD 29 (??/??/??)    2.354  (m)            7.72   (f) ADJUSTED    1
1
 AU0193
 AU0193.Superseded values are not recommended for survey control.
 AU0193
 AU0193.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AU0193.See file dsdata.txt to determine how the superseded data were
derived.
 AU0193
 AU0193_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RXN6436488367(NAD 83)
 AU0193
 AU0193_MARKER: DB = BENCH MARK DISK
 AU0193_SETTING: 36 = SET IN A MASSIVE STRUCTURE
 AU0193_SP_SET: TOWER FOOTING
 AU0193_STAMPING: V 275 1969
 AU0193_MARK LOGO: CGS
 AU0193_MAGNETIC: N = NO MAGNETIC MATERIAL
 AU0193_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AU0193_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AU0193+SATELLITE: SATELLITE OBSERVATIONS - September 17, 2010
 AU0193
 AU0193  HISTORY     - Date     Condition        Report By
 AU0193  HISTORY     - 1969     MONUMENTED       CGS
 AU0193  HISTORY     - 1976     GOOD             NGS
 AU0193  HISTORY     - 19930305 GOOD             NGS
 AU0193  HISTORY     - 20040426 GOOD             NGS
 AU0193  HISTORY     - 20051014 GOOD             NGS
 AU0193  HISTORY     - 20060502 GOOD             NGS
 AU0193  HISTORY     - 20061101 GOOD             JCLS
 AU0193  HISTORY     - 20090209 GOOD             LOWE
 AU0193  HISTORY     - 20090423 GOOD             WOOLPT
 AU0193  HISTORY     - 20100917 GOOD             EMCINC
 AU0193
 AU0193                          STATION DESCRIPTION
 AU0193
 AU0193'DESCRIBED BY COAST AND GEODETIC SURVEY 1969
 AU0193'IN PATTERSON.
 AU0193'AT PATTERSON, ABOUT 1.25 MILES NORTHWEST ALONG STATE HIGHWAY 182 FROM
 AU0193'THE UNITED METHODIST CHURCH, THENCE 0.25 MILE NORTHEAST ALONG
 AU0193'RIVERVIEW DRIVE, AT THE SOUTHERN NATURAL GAS AND OFFICE COMPANY
 AU0193'BUILDING, SET ON THE TOP OF THE SOUTH CORNER OF THE CONCRETE BASE FOR
 AU0193'THE 300-FOOT HIGH RADIO TOWER, 143 FEET NORTHWEST OF THE CENTER LINE
 AU0193'OF RIVERVIEW DRIVE, 74 FEET SOUTHWEST OF THE CENTER LINE OF DRIVEWAY
 AU0193'TO OFFICE AND 1/2 FOOT ABOVE THE LEVEL OF THE GROUND.
 AU0193
 AU0193                          STATION RECOVERY (1976)
 AU0193
 AU0193'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1976
 AU0193'1.25 MILE NORTHWEST ALONG STATE HIGHWAY 182 FROM THE UNITED METHODIST
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AU0193'CHURCH, THENCE 0.25 MILE EAST ALONG RIVERVIEW DRIVE, 143 FT. NORTH
AU0193'OF THE CENTER LINE OF THE DRIVE, 74 FT. WEST OF THE CENTER LINE OF
AU0193'A DRIVEWAY LEADING NORTH TO THE SOUTHERN NATURAL GAS COMPANY OFFICE,
AU0193'IN THE TOP OF THE WEST APEX OF A TRIANGULAR CONCRETE BASE OF A 300
AU0193'FT. HIGH STEEL RADIO TOWER.
AU0193
AU0193   STATION RECOVERY (1993)
AU0193
AU0193'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1993
AU0193'0.4 KM (0.25 MI) NORTHEASTERLY ALONG CATHERINE STREET FROM THE POST
AU0193'OFFICE IN PATTERSON, THENCE 1.9 KM (1.20 MI) WESTERLY ALONG STATE
AU0193'HIGHWAY 182, THENCE 0.5 KM (0.30 MI) NORTHEASTERLY ALONG RIVERVIEW
AU0193'DRIVE, NEAR THE SOUTH CORNER OF A FOOTING FOR A FORMER RADIO TOWER,
AU0193'43.6 M (143.0 FT) NORTHWEST OF THE CENTER OF THE DRIVE, 22.6 M (74.1
AU0193'FT) WEST-SOUTHWEST OF THE CENTER OF THE ENTRANCE ROAD LEADING TO THE
AU0193'SOUTHERN GAS COMPANY REPAIR YARD, 5.1 M (16.7 FT) SOUTHWEST OF THE
AU0193'NORTHWEST CORNER OF A METAL BUILDING, 2.5 M (8.2 FT) NORTHEAST OF THE
AU0193'NORTHWEST CORNER OF A BUILDING, 0.6 M (2.0 FT) BELOW THE LEVEL OF THE
AU0193'DRIVE, AND 0.2 M (0.7 FT) ABOVE THE GROUND SURFACE. NOTE--THE
AU0193'FOUNDATION IS 25-FEET DEEP.
AU0193
AU0193   STATION RECOVERY (2004)
AU0193
AU0193'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2004 (KLF)
AU0193'THE STATION IS LOCATED ABOUT 1.0 MI NORTH OF PATTERSON ON PROPERTY
AU0193'BELONGING TO BLAZEK INDUSTRIES LTD.
AU0193'
AU0193'TO REACH THE STATION FROM THE CITY HALL IN PATTERSON GO NORTHERLY FOR
AU0193'1.0 MI ALONG MAIN STREET TO RIVERVIEW DRIVE ON THE RIGHT, TURN RIGHT
AU0193'AND GO NORTHEAST FOR 0.2 MI ALONG THE DRIVE TO OLIVE LANE ON THE
AU0193'LEFT, TURN LEFT AND GO NORTHWEST THEN SOUTHEAST FOR 0.1 MI ALONG
OLIVE
AU0193'LANE AND A GRAVEL ENTRANCE ROAD LEADING TO BLAZEK INDUSTRIES
AU0193'PROPERTY, TO THE STATION ON THE RIGHT SET IN TOP OF THE SOUTH END
OF
AU0193'A 2.6 M TRIANGULAR FOUNDATION FOR A RAZED TOWER.
AU0193'
AU0193'THE STATION IS LOCATED 14.6 M NORTH OF THE NORTH CORNER OF A MOBILE
AU0193'HOME, 4.5 M WEST OF THE SOUTH CORNER OF A SMALL FIBERGLASS BUILDING,
AU0193'AND 2.4 M NORTHWEST OF THE NORTHWEST CORNER OF A 3.7 M BY 7.4 M
AU0193'CONCRETE SLAB.
AU0193
AU0193   STATION RECOVERY (2005)
AU0193
AU0193'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (DB)
AU0193'RECOVERED AS DESCRIBED.
AU0193
AU0193   STATION RECOVERY (2006)
AU0193
AU0193'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2006 (RLT)
AU0193'RECOVERED AS DESCRIBED.
AU0193
AU0193   STATION RECOVERY (2006)
AU0193
AU0193'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2006 (MRY)
AU0193'RECOVERED IN GOOD CONDITION.
AU0193

AU0193 STATION RECOVERY (2009)
AU0193
AU0193'RECOVERY NOTE BY LOWE ENGINEERS 2009 (RW)
AU0193'RECOVERED IN GOOD CONDITION.
AU0193
AU0193 STATION RECOVERY (2009)
AU0193
AU0193'RECOVERY NOTE BY WOOLPERT CONSULTANTS 2009 (JPD)
AU0193'RECOVERED AS DESCRIBED
AU0193
AU0193 STATION RECOVERY (2010)
AU0193
AU0193'RECOVERY NOTE BY EMC INCORPORATED 2010 (MDG)
AU0193'RECOVERED AS DESCRIBED.

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 DJ9345  HT_MOD      -  This is a Height Modernization Survey Station.
 DJ9345  DESIGNATION -  TV14 SM 06
 DJ9345  PID         -  DJ9345
 DJ9345  STATE/COUNTY-  LA/ST MARY
 DJ9345  COUNTRY     -  US
 DJ9345  USGS QUAD   -  CYPREMORT POINT (1994)
 DJ9345
 DJ9345                         *CURRENT SURVEY CONTROL
 DJ9345
_____________________________________________________________________
 DJ9345* NAD 83(2011) POSITION- 29 42 49.57935(N) 091 52 42.78878(W)
ADJUSTED
 DJ9345* NAD 83(2011) ELLIP HT-   -24.864 (meters)        (06/27/12)
ADJUSTED
 DJ9345* NAD 83(2011) EPOCH   -  2010.00
 DJ9345* NAVD 88 ORTHO HEIGHT -     0.93   (meters)       3.1   (feet) GPS
OBS
 DJ9345* NAVD 88 EPOCH        -  2009.55
 DJ9345  **This station is located in a suspected subsidence area (see
below).
 DJ9345
_____________________________________________________________________
 DJ9345  GEOID HEIGHT    -        -25.79  (meters)
GEOID12A
 DJ9345  NAD 83(2011) X  -   -181,739.149 (meters)                    COMP
 DJ9345  NAD 83(2011) Y  - -5,541,050.934 (meters)                    COMP
 DJ9345  NAD 83(2011) Z  -  3,142,844.317 (meters)                    COMP
 DJ9345  LAPLACE CORR    -          0.47  (seconds)
DEFLEC12A
 DJ9345
 DJ9345  FGDC Geospatial Positioning Accuracy Standards (95% confidence, cm)
 DJ9345  Type                                          Horiz  Ellip  Dist(km)
 DJ9345  ----------------------------------------------------------------
 DJ9345  NETWORK                                        0.40   1.43
 DJ9345  ----------------------------------------------------------------
 DJ9345  MEDIAN LOCAL ACCURACY AND DIST (130 points)   0.56   2.14    108.90
 DJ9345  ----------------------------------------------------------------
 DJ9345  NOTE: Click here for information on individual local accuracy
 DJ9345  values and other accuracy information.
 DJ9345
 DJ9345
 DJ9345.The horizontal coordinates were established by GPS observations
 DJ9345.and adjusted by the National Geodetic Survey in June 2012.
 DJ9345
 DJ9345.NAD 83(2011) refers to NAD 83 coordinates where the reference
 DJ9345.frame has been affixed to the stable North American tectonic plate.
See
 DJ9345.NA2011 for more information.
 DJ9345
 DJ9345.The horizontal coordinates are valid at the epoch date displayed
above
 DJ9345.which is a decimal equivalence of Year/Month/Day.
 DJ9345
 DJ9345 ** This station is in an area of known vertical motion.  Due to the
 DJ9345 ** variability of land subsidence, uplift, and crustal motion, NGS
has,
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DJ9345 ** determined the orthometric heights for marks in these suspect
DJ9345 ** subsidence areas should be considered valid only at the epoch date
DJ9345 ** associated with the orthometric height. These heights must always
DJ9345 ** be validated when used as control. All previously superseded
DJ9345 ** orthometric heights are now considered suspect and are available
DJ9345 ** in the superseded section. NGS does not recommend using suspect
DJ9345 ** or superseded heights as control.
DJ9345
DJ9345.The orthometric height was determined by GPS observations and a
DJ9345.high-resolution geoid model using precise GPS observation and
DJ9345.processing techniques.
DJ9345
DJ9345.The X, Y, and Z were computed from the position and the ellipsoidal
ht.
DJ9345
DJ9345.The Laplace correction was computed from DEFLEC12A derived
deflections.
DJ9345
DJ9345.The ellipsoidal height was determined by GPS observations
DJ9345.and is referenced to NAD 83.
DJ9345
DJ9345. The following values were computed from the NAD 83(2011) position.
DJ9345
DJ9345;   North   East   Units Scale Factor
Converg.
DJ9345;SPC LA S   -   134,665.758   947,246.987   MT 0.99993822   -0 16
21.4
DJ9345;SPC LA S   -   441,815.91 3,107,759.49   sFT 0.99993822   -0 16
21.4
DJ9345;UTM 15   - 3,287,595.895   608,473.612   MT 0.99974518   +0 33
21.3
DJ9345
DJ9345!   - Elev Factor x Scale Factor =   Combined Factor
DJ9345!SPC LA S   -   1.00000391 x   0.99993822 =   0.99994212
DJ9345!UTM 15   -   1.00000391 x   0.99974518 =   0.99974908
DJ9345
DJ9345   SUPERSEDED SURVEY CONTROL
DJ9345
DJ9345 ELLIP H (10/11/11) -24.875 (m)   GP(   ) 4
1
DJ9345 NAD 83(2007)- 29 42 49.57939(N)   091 52 42.79007(W) AD(2006.81) A
DJ9345 ELLIP H (03/12/08) -24.866 (m)   GP(2006.81) 3
1
DJ9345 NAVD 88 (03/12/08)   1.03   (m) GEOID03 model used   GP(2006.81)
DJ9345
DJ9345.Superseded values are not recommended for survey control.
DJ9345
DJ9345.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
DJ9345.See file dsdata.txt to determine how the superseded data were
derived.
DJ9345
DJ9345_U.S. NATIONAL GRID SPATIAL ADDRESS: 15RXN0847387595(NAD 83)
DJ9345
DJ9345_MARKER: F = FLANGE-ENCASED ROD
DJ9345_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
DJ9345_STAMPING: CYPR-RESET TV14 SM 06 2001
DJ9345_MARK LOGO: NGS

DJ9345_PROJECTION: FLUSH
DJ9345_MAGNETIC: O = OTHER; SEE DESCRIPTION
DJ9345_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DJ9345+STABILITY: SURFACE MOTION
DJ9345_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DJ9345+SATELLITE: SATELLITE OBSERVATIONS - April 13, 2011
DJ9345_ROD/PIPE-DEPTH: 9.8 meters
DJ9345
DJ9345 HISTORY   - Date   Condition   Report By
DJ9345 HISTORY   - 20010426 MONUMENTED   LADNR
DJ9345 HISTORY   - 20060427 GOOD   NGS
DJ9345 HISTORY   - 20100926 GOOD   EMCINC
DJ9345 HISTORY   - 20110413 GOOD   DEWDAV
DJ9345
DJ9345   STATION DESCRIPTION
DJ9345
DJ9345'DESCRIBED BY NATIONAL GEODETIC SURVEY 2006 (RLT)
DJ9345'ORIGINAL MARK SET APRIL 2001 AS A DISK ON ROD BY JOHN CHANCE LAND
DJ9345'SURVEYS, INCORPORATED FOR THE LOUISIANA DEPARTMENT OF NATURAL
DJ9345'RESOURCES, COASTAL RESOUCES DIVISION, AND IS LOCATED AT THE END OF
DJ9345'HIGHWAY 319 IN CYPREMORT POINT, LOUISIANA.
DJ9345'
DJ9345'THE MONUMENT IS ON THE NORTH SIDE OF BEACON LANE (LIMESTONE ROAD),
DJ9345'36.2 FT (11.0 M) EASTERLY FROM LIL TODDY CAMP, 43.1 FT (13.1 M)
DJ9345'WESTERLY FROM A PROPANE GAS TANK NEAR LEGNONS TACKLE MART.
DJ9345'
DJ9345'ORIGINAL DISK WAS REMOVED AND THE MARK WAS RESET AUG 16, 2007 AS A
DJ9345'SPHERICAL DATUM POINT SCREWED TO THE 2001 STEEL ROD DRIVEN 32 FT (9.8
DJ9345'M) TO REFUSAL WITHIN A FLOATING SLEEVE AND 6 INCH (15 CM) PVC PIPE
DJ9345'FILLED WITH SAND SET IN CONCRETE WITH AN ACCESS COVER.
DJ9345'
DJ9345'TV14 SM 06 DECODES AS TECHE/VERMILLION DRAINAGE DISTRICT PROJECT 14
DJ9345'SECONDARY MARK 06.
DJ9345
DJ9345   STATION RECOVERY (2010)
DJ9345
DJ9345'RECOVERY NOTE BY EMC INCORPORATED 2010 (MDG)
DJ9345'RECOVERED AS DESCRIBED.
DJ9345
DJ9345   STATION RECOVERY (2011)
DJ9345
DJ9345'RECOVERY NOTE BY DEWBERRY DAVIS 2011 (GDS)
DJ9345'RECOVERED IN GOOD CONDITION.

Appendix B

Fundamental Vertical Accuracy Point List

Point ID	LAT	LONG	Easting	Northing	Elevation	Ellipsoid	Feature Code
2000	N29°42'00.55660"	W92°12'35.93312"	576424.723	3285821.873	-25.088	0.721	BARE EARTH OPEN TERRAIN
2001	N29°40'51.14303"	W92°12'23.47957"	576774.038	3283687.608	-25.24	0.504	BARE EARTH OPEN TERRAIN
2100	N29°47'01.28619"	W92°02'07.04109"	593247.496	3295206.878	-25.009	1.021	BARE EARTH OPEN TERRAIN
2103	N29°50'26.73262"	W91°59'37.24886"	597214.336	3301565.209	-24.991	1.216	BARE EARTH OPEN TERRAIN
2104	N29°50'27.89464"	W92°05'31.68535"	587702.538	3301521.911	-25.223	0.997	BARE EARTH OPEN TERRAIN
2105	N29°48'35.81298"	W92°05'52.02648"	587183.699	3298067.617	-25.145	0.977	BARE EARTH OPEN TERRAIN
2109	N29°48'16.25317"	W91°49'02.17866"	614298.438	3297710.742	-22.747	3.295	BARE EARTH OPEN TERRAIN
2112	N29°59'14.77645"	W91°16'06.95447"	667023.514	3318654.941	-24.68	1.738	BARE EARTH OPEN TERRAIN
2113	N30°06'31.04890"	W91°18'34.66398"	662866.359	3332027.354	-23.281	3.485	BARE EARTH OPEN TERRAIN
2201	N29°53'52.06035"	W91°46'34.18192"	618161.697	3308089.341	-25.946	0.358	BARE EARTH OPEN TERRAIN
2204	N29°50'20.70367"	W91°47'21.64372"	616957.174	3301569.686	-25.048	1.082	BARE EARTH OPEN TERRAIN
2207	N29°44'42.07058"	W91°49'03.31506"	614335.506	3291117.391	-25.251	0.61	BARE EARTH OPEN TERRAIN
2210	N29°42'53.79024"	W91°52'38.91514"	608576.438	3287726.524	-25.018	0.777	BARE EARTH OPEN TERRAIN
2213	N29°39'20.48242"	W91°17'37.18179"	665150.078	3281850.963	-25.247	0.174	BARE EARTH OPEN TERRAIN
2215	N29°42'56.33196"	W91°15'04.73784"	669148.719	3288557.26	-22.925	2.648	BARE EARTH OPEN TERRAIN
2218	N29°49'41.95007"	W91°24'48.93227"	653277.995	3300817.657	-23.341	2.615	BARE EARTH OPEN TERRAIN
2220	N29°56'07.05226"	W91°33'06.52898"	639772.278	3312496.848	-25.1	1.283	BARE EARTH OPEN TERRAIN
2221	N30°31'47.20574"	W91°44'39.37882"	620468.31	3378162.245	-18.276	9.109	BARE EARTH OPEN TERRAIN
2222	N30°24'23.91145"	W91°42'30.66668"	624054.597	3364553.702	-19.847	7.508	BARE EARTH OPEN TERRAIN
2223	N30°04'44.22242"	W91°37'21.25880"	632750.88	3328333.634	-23.776	3.086	BARE EARTH OPEN TERRAIN
2226	N30°37'36.34478"	W91°39'01.26444"	629350.545	3389015.247	-18.254	9.093	BARE EARTH OPEN TERRAIN
2227	N30°40'52.96697"	W91°42'22.30921"	623928.122	3395005.719	-19	8.321	BARE EARTH OPEN TERRAIN
2230	N30°46'54.70126"	W91°37'23.10984"	631752.903	3406237.406	-8.361	18.885	BARE EARTH OPEN TERRAIN
2232	N30°35'20.08906"	W91°44'57.24363"	619919.447	3384710.829	-19.005	8.368	BARE EARTH OPEN TERRAIN
2234	N30°44'01.42785"	W91°43'33.54309"	621966.742	3400786.193	-19.181	8.093	BARE EARTH OPEN TERRAIN
2235	N30°31'01.00988"	W91°35'38.91503"	634889.984	3376909.994	-21.291	6.059	BARE EARTH OPEN TERRAIN
2236	N30°33'01.93938"	W91°51'03.62141"	610204.627	3380353.785	-21.566	5.822	BARE EARTH OPEN TERRAIN
2237	N30°27'02.98702"	W91°51'33.70871"	609514.637	3369295.164	-19.199	8.189	BARE EARTH OPEN TERRAIN
2239	N30°22'58.26592"	W91°30'50.24575"	642779.925	3362146.278	-22.71	4.579	BARE EARTH OPEN TERRAIN
2240	N30°16'06.10624"	W91°27'51.15150"	647732.114	3349520.884	-24.555	2.611	BARE EARTH OPEN TERRAIN

Appendix C


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