



Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

August 11, 2010

U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

Attention: Mr. Robert Tewis
Project Manager

Subject: Permit Modification to Emergency Permit MVN 2010-1066-ETT
"Pass a Loutr  A" Borrow Area

Dear Mr. Tewis,

This document is being submitted by OCPR as a permit modification to NOD-20 emergency permit (MVN 2010-1066-ETT) for the proposed "Pass a Loutr  A" borrow area. The purpose of this modification is to extend the borrow area in Pass a Loutr  to include "Pass a Loutr  A" immediately adjacent to the pre-approved Hopper Dredge Disposal Area (HDDA).

The proposed Pass a Loutr  A borrow area is illustrated in the attached drawings. These drawings illustrate the proposed boundaries of the borrow area (plan view) and cross sections showing maximum dredge and equipment depths. As shown, the boundaries of the borrow area allow for avoidance buffers for potential submerged cultural resources and pipelines.

This request has been coordinated with the appropriate regulatory agencies to avoid impacts to potential submerged cultural resources and to assess potential sediment contaminants. Enclosed please find the State Historic Preservation Office clearance letter and cultural resources survey results. Also enclosed please find the letter report detailing the sediment sampling analysis results.

In an effort to not negatively impact the schedule for completion of the sand berm, we are in need of your acceptance or denial of this request as soon as possible. Please let me know if you need any additional information to assist in your review of this modification request.

Sincerely,

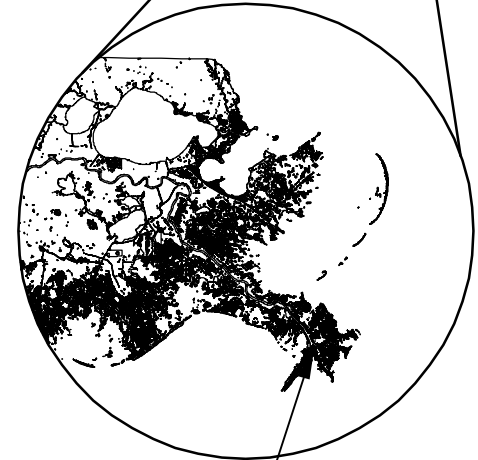
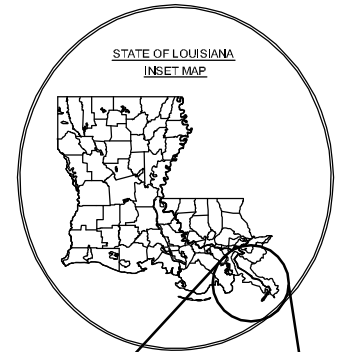
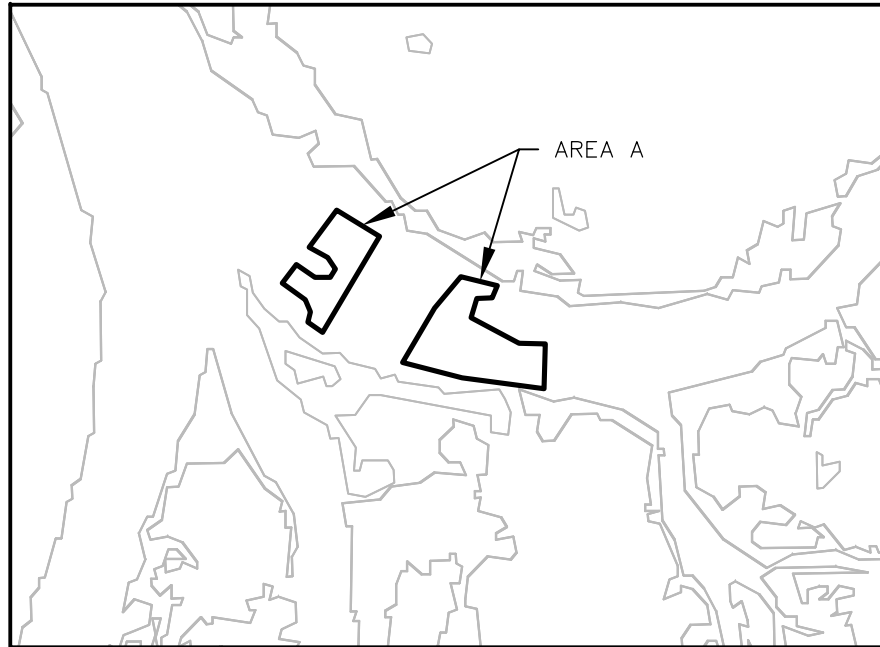
Kristi Cantu

**STATE OF LOUISIANA
OFFICE OF COASTAL PROTECTION AND RESTORATION
ENGINEERING BRANCH**

INDEX TO SHEETS

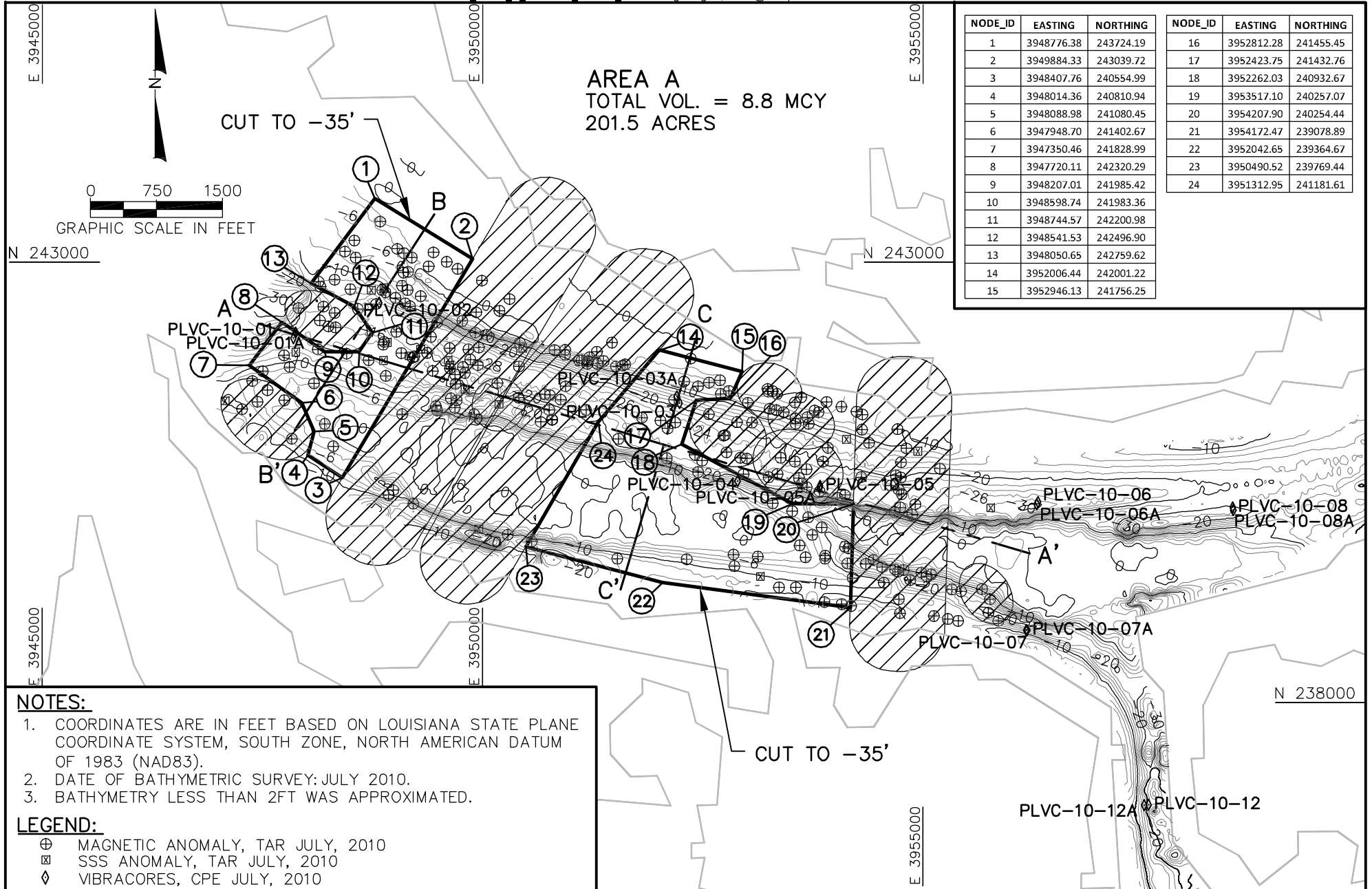
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET
2	PLAN VIEW
3 - 4	CROSS SECTIONS

**PASS A LOUTRE EMERGENCY PERMIT
AREA A**



PROJECT LOCATION

APPLICATION BY: OFFICE OF COASTAL PROTECTION AND RESTORATION 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	PASS A LOUTRE EMERGENCY PERMIT AREA A	TITLE SHEET
		STATE PROJECT NUMBER:	DATE: 08/10/10
DRAWN BY:	DESIGNED BY:	APPROVED BY:	FEDERAL PROJECT NUMBER: SHEET 1 OF 4



NODE_ID	EASTING	NORTHING	NODE_ID	EASTING	NORTHING
1	3948776.38	243724.19	16	3952812.28	241455.45
2	3949884.33	243039.72	17	3952423.75	241432.76
3	3948407.76	240554.99	18	3952262.03	240932.67
4	3948014.36	240810.94	19	3953517.10	240257.07
5	3948088.98	241080.45	20	3954207.90	240254.44
6	3947948.70	241402.67	21	3954172.47	239078.89
7	3947350.46	241828.99	22	3952042.65	239364.67
8	3947720.11	242320.29	23	3950490.52	239769.44
9	3948207.01	241985.42	24	3951312.95	241181.61
10	3948598.74	241983.36			
11	3948744.57	242200.98			
12	3948541.53	242496.90			
13	3948050.65	242759.62			
14	3952006.44	242001.22			
15	3952946.13	241756.25			

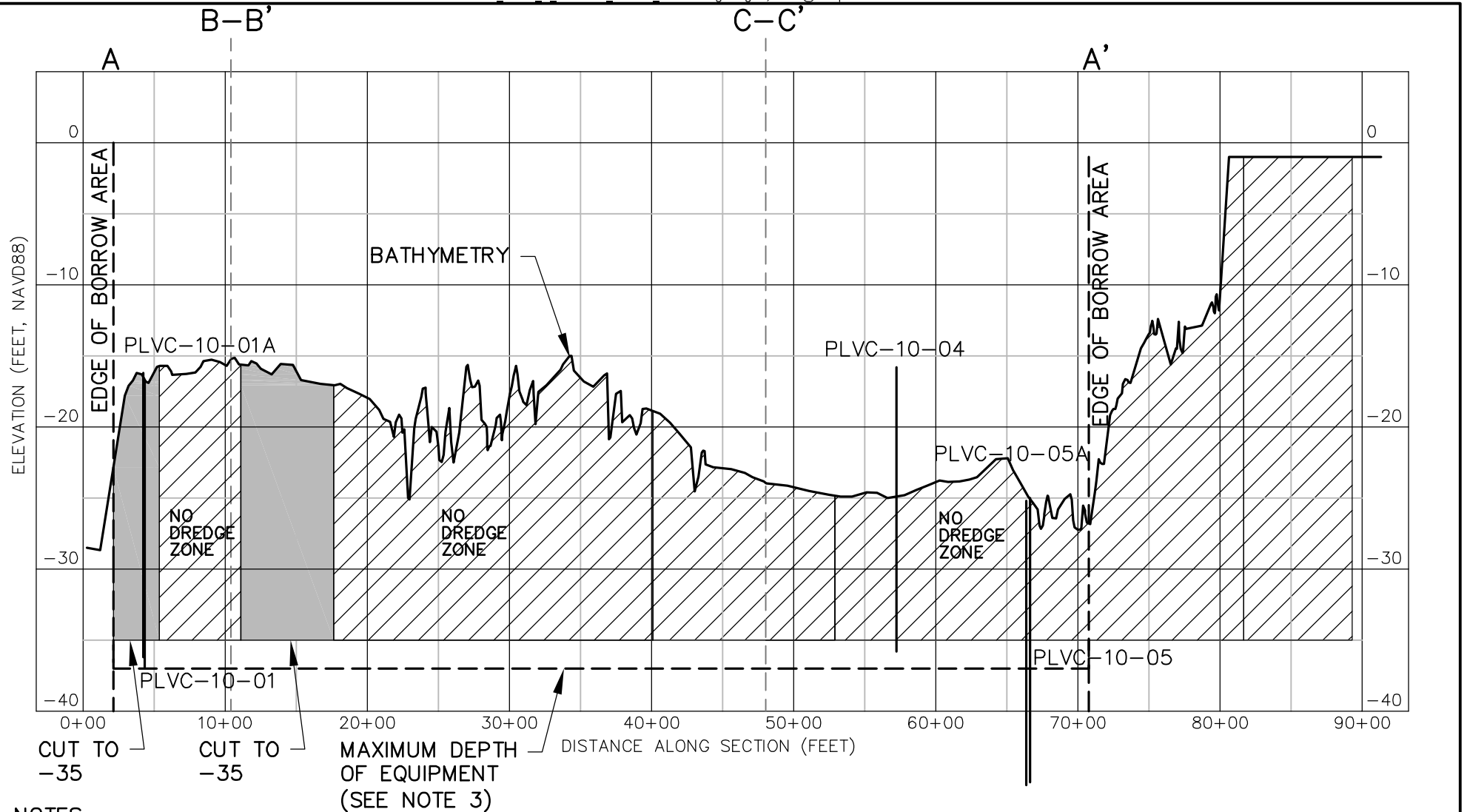
NOTES:

- COORDINATES ARE IN FEET BASED ON LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
- DATE OF BATHYMETRIC SURVEY: JULY 2010.
- BATHYMETRY LESS THAN 2FT WAS APPROXIMATED.

LEGEND:

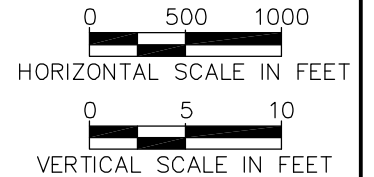
- ⊕ MAGNETIC ANOMALY, TAR JULY, 2010
- ⊗ SSS ANOMALY, TAR JULY, 2010
- ◇ VIBRACORES, CPE JULY, 2010

APPLICATION BY: OFFICE OF COASTAL PROTECTION AND RESTORATION 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		PASS A LOUTRE EMERGENCY PERMIT AREA A		PLAN VIEW MAP BATHYMETRY IN FT, NAVD88	
DRAWN BY:		DESIGNED BY:		APPROVED BY:		STATE PROJECT NUMBER:	
						DATE: 08/10/10	
						FEDERAL PROJECT NUMBER:	
						SHEET 2 OF 4	

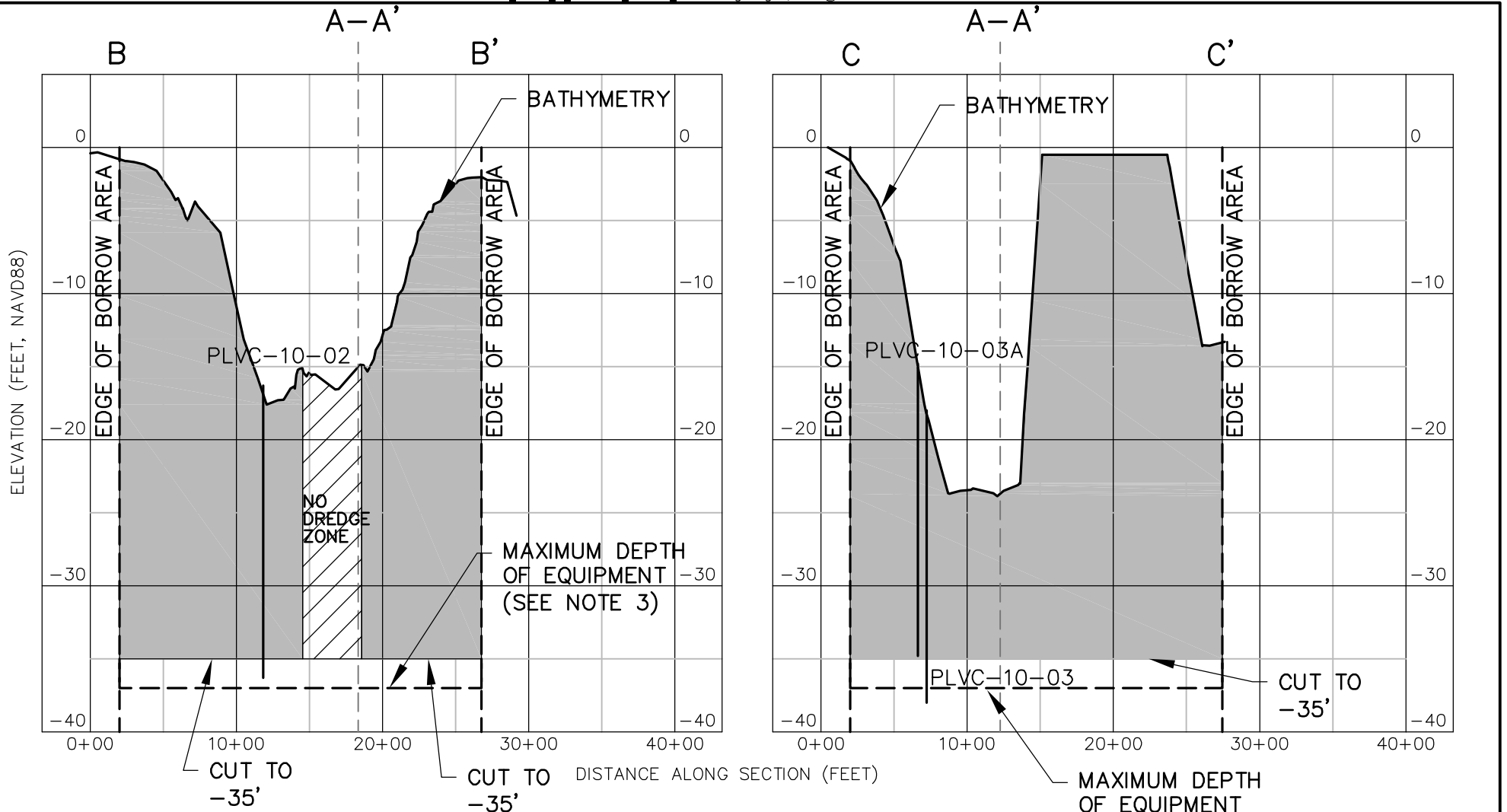


NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE SUFFICIENTLY CLOSE TO CONTAIN SIMILAR MATERIAL.
2. SEE SHEET 2 FOR LOCATION OF CROSS SECTION LINES.
3. MAXIMUM DEPTH OF EQUIPMENT IS 2 FEET BELOW CUT ELEVATION.
4. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM, 1988 (NAVD88).

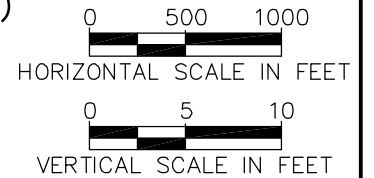


APPLICATION BY: OFFICE OF COASTAL PROTECTION AND RESTORATION 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	PASS A LOUTRE EMERGENCY PERMIT AREA A	CROSS SECTION A-A'
DRAWN BY:	DESIGNED BY:	APPROVED BY:	DATE: 08/10/10
		STATE PROJECT NUMBER:	FEDERAL PROJECT NUMBER:
			SHEET 3 OF 4



NOTES:

1. CORES MAY NOT FALL DIRECTLY ON CROSS SECTION LINE, BUT ARE SUFFICIENTLY CLOSE TO CONTAIN SIMILAR MATERIAL.
2. SEE SHEET 2 FOR LOCATION OF CROSS SECTION LINES.
3. MAXIMUM DEPTH OF EQUIPMENT IS 2 FEET BELOW CUT ELEVATION.
4. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM, 1988 (NAVD88).



APPLICATION BY: OFFICE OF COASTAL PROTECTION AND RESTORATION 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801	PASS A LOUTRE EMERGENCY PERMIT AREA A	CROSS SECTIONS B-B' & C-C'
DRAWN BY:	DESIGNED BY:	APPROVED BY:	DATE: 08/10/10
		STATE PROJECT NUMBER:	FEDERAL PROJECT NUMBER:
		SHEET 4 OF 4	



SCOTT A. ANGELLE
LIEUTENANT GOVERNOR

State of Louisiana
OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT

PAM BREAU
SECRETARY

4 August 2010

Mr. Bob Routon
Office of Coastal Protection and Restoration
450 Laurel Ave.
Baton Rouge, La 70801

Dear Mr. Routon;

The State Historic Preservation Office (SHPO) has reviewed a letter dated 1 August 2010 submitted by Tidewater Atlantic Research, Inc., to CP&E Coastal Geology and Geomatics, Inc., concerning remote sensing survey of the proposed Pass a Loutre survey area. The survey was conducted at 50 m intervals using magnetometer and side-scan sonar investigations. Although this line spacing does not meet the recommendations of the SHPO for underwater investigations and some smaller resources may not have been identified, the Office recognizes the urgency of the situation and believes that the methods used provide sufficient information to assess the potential for cultural resources to be present in the project area.

Survey of the Pass a Loutre area identified 237 magnetic anomalies within the project area. Two pipelines, one cable, several vessels, floating dredge pipe and their associated ground tackle represent 81 of the anomalies. An additional 123 anomalies represent small objects and do not have signatures characteristic of submerged cultural resources. Our office does not have any concerns for any of these anomalies.

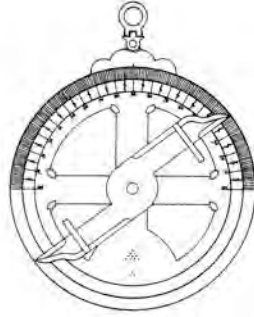
Seven clusters of magnetic anomalies may potentially represent submerged cultural resources. In addition, one sonar target may also represent a submerged cultural resource. Tidewater Atlantic recommends, and SHPO concurs, that placing a 300 foot buffer around each cluster or target will allow them to be avoided during the dredging operation. In addition, Tidewater Atlantic's review of the available historic data for the Pass a Loutre channel indicates that many of these potential submerged cultural resources lie 40 or more feet below normal water level. If the dredging is restricted to less than 35 feet below surface, none of the potential submerged cultural resources will be impacted. Tidewater Atlantic recommends, and SHPO concurs, that if these strategies can be implemented, there will be no adverse affects to historic properties in the survey area.

If you have any questions or concerns, please contact Dr. Chip McGimsey at cmcgimsey@crt.state.la.us, or

Sincerely,

Phil Boggan
Deputy State Historic Preservation Officer

PB:crm



Tidewater Atlantic Research, Inc.

Post Office Box 2494
5290 River Road
Washington NC 27889

[REDACTED]
Email: iimr@coastalnet.com
Web: iimr.home.coastalnet.com

1 August 2010

Jeffrey L. Andrews, PSM, CH
Vice President
CPE Coastal Geology and Geomatics
Coastal Planning & Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, Florida 33431

Dear Mr. Andrews:

We reviewed the remote-sensing data for the Pass A Loutre survey area at Head of Passes (Figure 1). The submerged cultural resource survey was carried out at 50-meter line spacing. Analysis of the magnetometer data identified a total of 237 magnetic anomalies (Figure 2 & Table A). One charted pipeline and one uncharted pipeline are present in the survey area. The charted pipeline extends north to south across the survey area near the western end. The uncharted pipeline extends north to south across the survey area near the eastern end. A total of 46 anomalies are associated with pipelines in the survey area. A charted cable crosses the survey area between the two pipelines. Nineteen additional anomalies are associated with the cable crossing. Vessels, floating dredge pipe, and the associated ground tackle were responsible for another 16 anomalies along the north side of the western island.

Buffers are established around 7 concentrations of anomalies. Although it is impossible to determine whether those concentrations represent vessel remains or modern debris, the signature characteristics and spatial associations compare favorably with anomaly concentrations associated with historic shipwrecks. A total of 33 anomalies are included in buffers A, B, C, D, E, F and G (Figure 2).

Of the remaining 123 anomalies, 91 have signature characteristics indicative of small single objects. The characteristics of those anomalies indicate a potential association with small objects such as short sections of pipe, cable and chain or small anchors, drums, traps and other similar debris. Those anomalies are not recommended for avoidance. The final 32 anomalies have signature characteristics that are indicative of more substantial single or small multiple objects. However none are associated with anomalies on adjacent survey lines that might suggest an association with more complex material. Although it is not possible to better assess the nature of material generating those signatures, the scope of modern maritime activity in the project vicinity could be responsible for the deposition of many of those objects. Those anomalies are not recommended for avoidance.

Analysis of the sidescan sonar data (Figure 3 and Table B) provides only limited insight into the nature of material generating most of the magnetic anomalies. Aside from the images of moored vessels, dredge pipe and the associated ground tackle, only one sonar contact was associated with specific magnetic anomalies. PALSS-10 confirmed that wire was associated with anomalies 16, 17 and 142. One sonar contact, PALSS-17 was determined to be sufficiently complex to merit buffering (Buffer H) as potentially associated with the remains of a small vessel.

In assessing both the potential historical association of anomalies in the survey area and the impacts of dredging in the Pass A Loutre/Head of Passes survey area, consideration has been given to historical charted water depths. As early as 1839 water depths in the area surveyed by the Bureau of Topographical Engineers ranged from 42 to 53 feet (Figure 4). By 1874, depths in the project area ranged from 24 feet just downstream of a shoal near Head of the Passes to a maximum of 84 feet adjacent to the south shoreline. Along the south shoreline in the project area depths ranged from 64 to 84 feet (Figure 5).

By that time plans to restrict and channel the flow of water through Pass A Loutre were being considered and as early as 1881 sills were constructed across the river at Head of Passes to accomplish that objective (Figure 6). The sills channeled water along the south shore in the project area and depths documented as early as 1874 remained relatively constant through 1901 (Figure 7). By 1934 charted depths in the survey area ranged from 122 to 19 feet (Figure 8). A shoal building up along the southern shoreline appears to have been the origin of the two islands currently in the survey area. Above that shoal at Head of the Passes the water depth on the 1934 Chart reached 122 feet. Below the shoal depths along the south shoreline were charted at 54 and 61 feet.

Cartographic evidence indicates that the historical bottom in much of the project area was below 35 feet in the survey area. The islands now present are relatively modern features (Figure 9) that developed first as a charted shoal around 1900. That shoal migrated east over approximately 80 years to fill in much of the deepwater channel on the south side of the river.

Based on our assessment of the remote sensing data, anomaly clusters isolated by buffers should be avoided unless material generating those signatures can be identified and determined to have no historical significance. While it is difficult to determine if the remaining anomalies are associated with historic vessel remains on the basis of available data, the distribution, signature characteristics and nature and scope of current maritime activities in the study area indicate that modern debris is likely associated with most of the anomalies.

Pass A Loutre was one of the major routes for vessels entering the Mississippi until well into the 20th century. However, none of the charts examined identify shipwrecks in the project survey area. Only one obstruction appears on the contemporary navigation chart and it is not included on the 1934 chart. No AWOIS information could be found to document the nature of the obstruction.

Examination of the charts does indicate that historic vessel remains in the survey area could well lie below the depth of proposed dredging if dredge cuts are limited to 35 feet and are designed around the historical channel depths. Available charts dating as early as 1839 confirm that water depths in the channel were over 40 feet. Along the south shoreline charted depths were well in excess of 40 feet until shoaling developed into the islands that are present today. While no remote sensing data are available for the island locations, both formed in areas where historical water depths were in excess of 40 feet. If dredging in those areas is limited to 35 feet historically significant vessel remains should be protected.

Best regards,

A handwritten signature in black ink, appearing to read "Gordon P. Watts, Jr.", with a stylized flourish at the end.

Gordon P. Watts, Jr., Ph.D., RPA

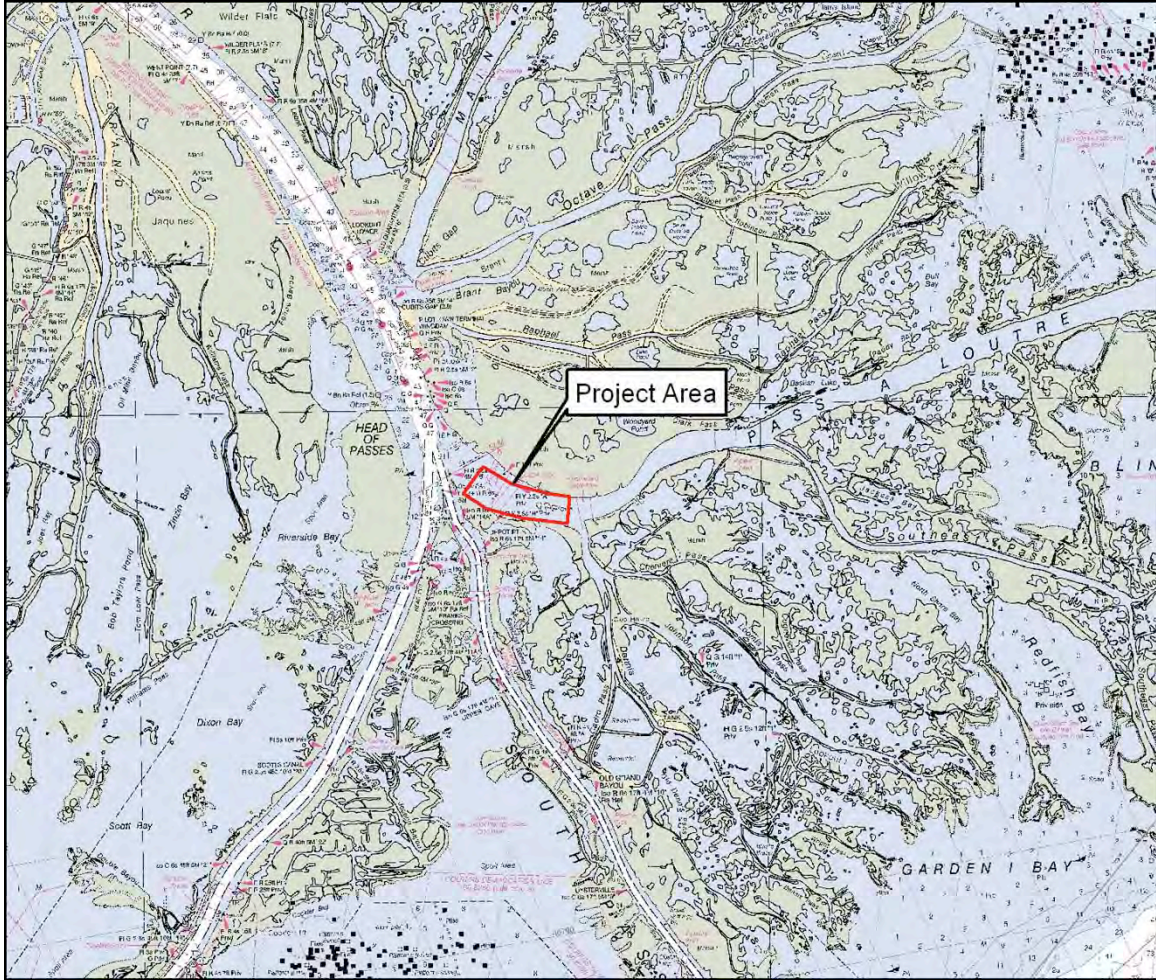


Figure 1. Pass A Loutre project location map.

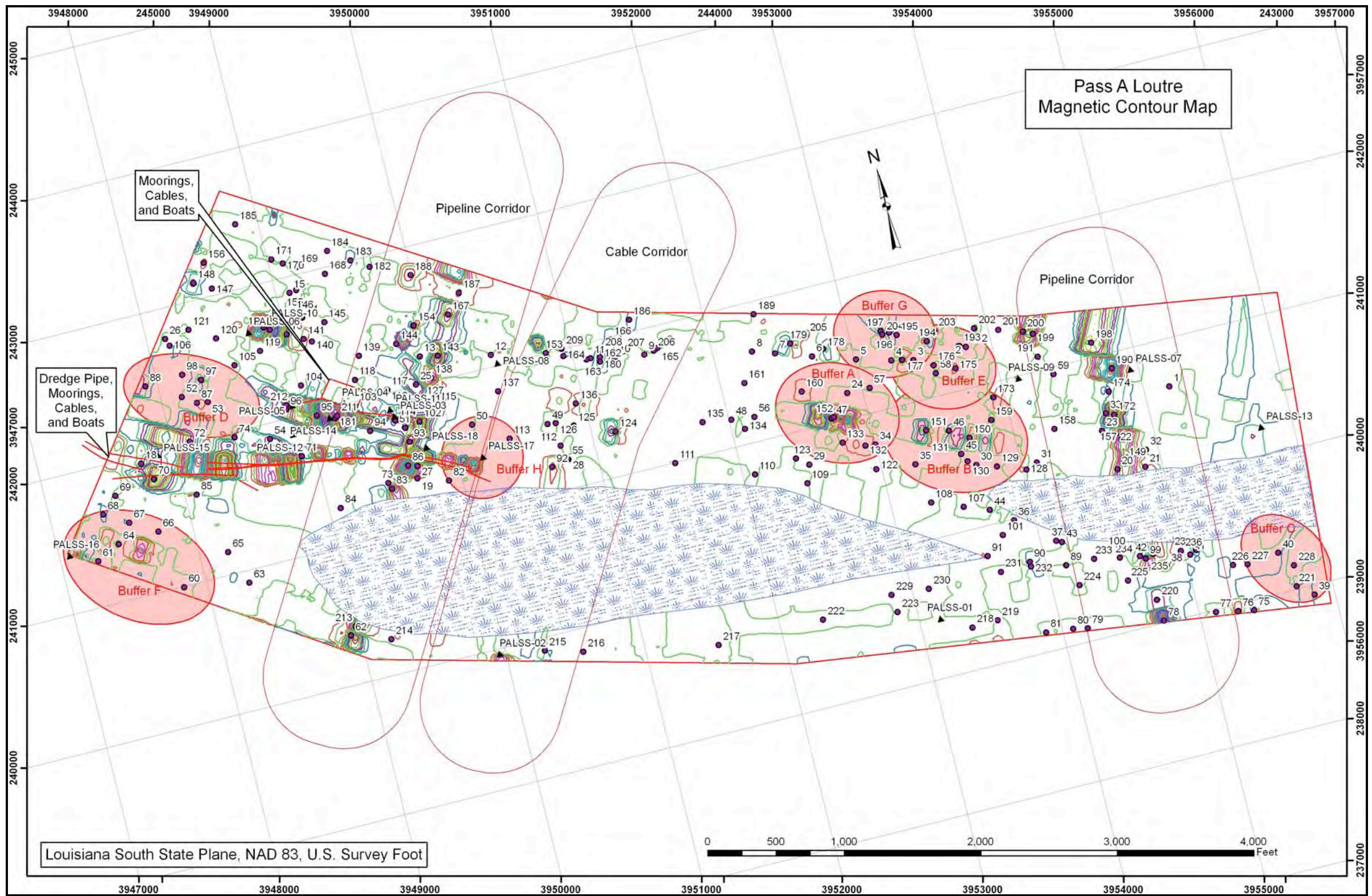


Figure 2. Pass A Loutre magnetic contour map.

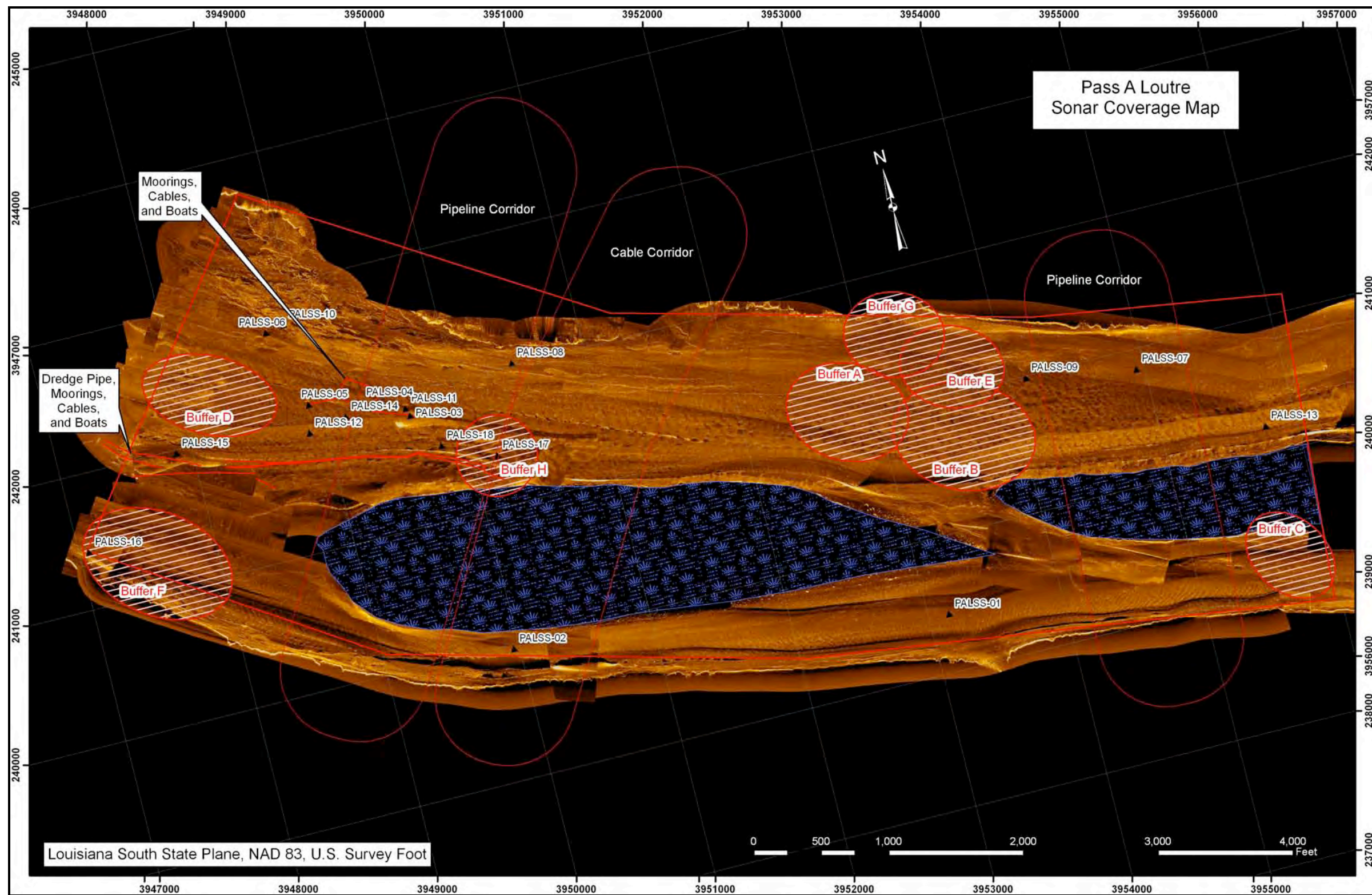


Figure 3. Pass A Loutre sonar coverage map.



Figure 4. Bureau of Topographical Engineers 1839 Chart.

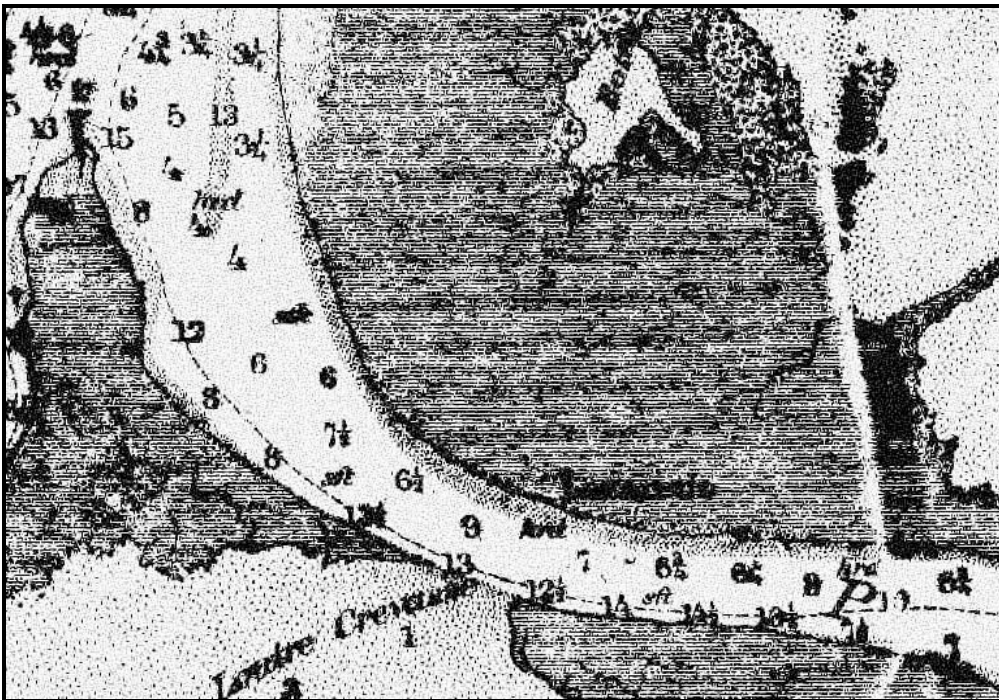


Figure 5. Coast and Geodetic Survey 1874 Chart.

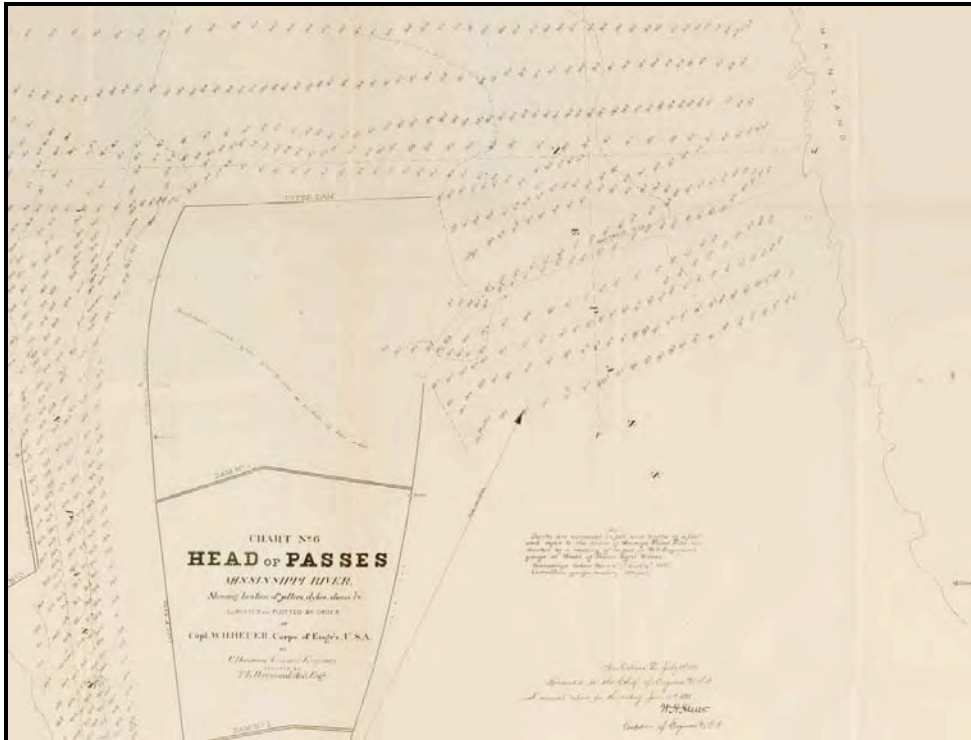


Figure 6. U. S. Army Corps of Engineers 1881 Head of Passes Map.

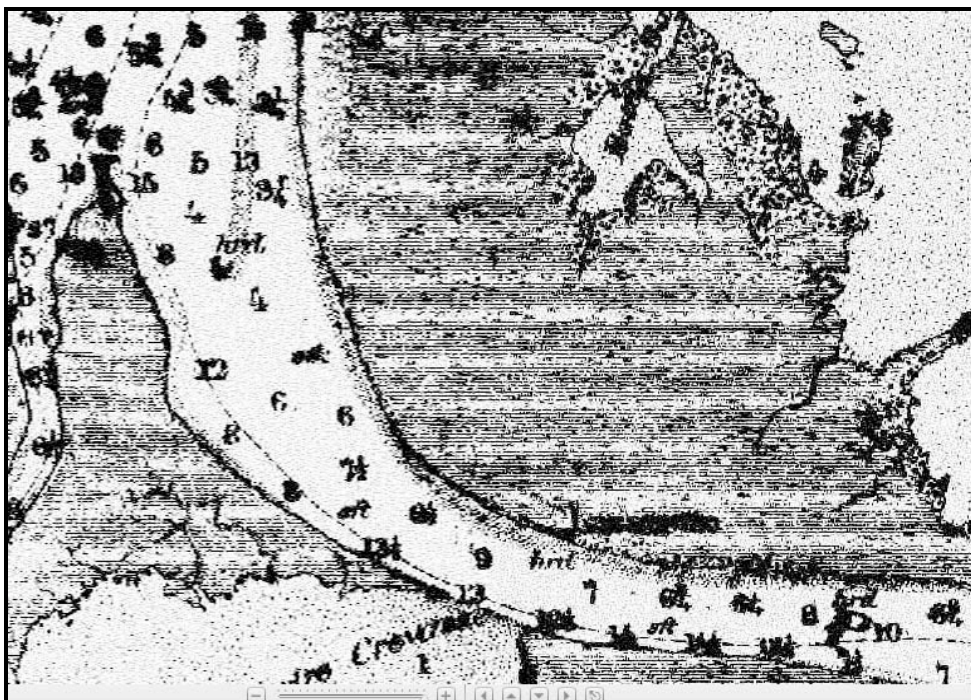


Figure 7. Coast and Geodetic Survey 1901 Chart.



Figure 8. Coast and Geodetic Survey Chart 1272 Mississippi River Delta 1934.



Figure 9. Current Aerial Photograph.

Table A: Pass A Loutre Magnetic Anomalies

Map ID	Name	X	Y	Assessment
1	003-8-pd16g230f	3955189.4	240656.4	Moderate Single Objects
2	003-10dp28g160f	3953685.0	241241.1	Buffer E
3	003-11-dp12g110f	3953415.0	241297.4	Small Single Object
4	003-12-nm14g170f	3953257.7	241335.5	Small Single Objects
5	003-13-dp16g80f	3953010.3	241403.4	Small Single Object
6	003-14-mc13g250f	3952702.1	241504.1	Moderate Single Objects
7	003-15-dp36g340f	3952444.8	241591.7	Moderate Single Objects
8	003-16-nm6g30f	3952285.7	241645.8	Small Single Object
9	003-17-dp6g35f	3951513.6	241816.8	Small Single Object
10	003-18-dp15g80f	3951298.9	241847.6	Cable Associated
11	003-19-nm30g300f	3951123.1	241885.0	Cable Associated
12	003-20-mc20g239f	3950422.3	242085.7	Small Single Objects
13	003-21-mc2647g480f	3949915.9	242201.3	Pipeline Associated
14	003-22-pm42g50f	3949148.4	242684.8	Small Single Object
15	003-23-pm72g55f	3949102.5	242882.7	Small Single Object
16	005-3-pm58g110f	3949009.6	242594.0	Cable Associated, PALSS-10
17	005-4-mc1521g400f	3948858.1	242684.0	Cable Associated, PALSS-10
18	009-2-dp52g240f	3947745.9	241941.9	Floating Dredge Pipe
19	009-3-dp68g200f	3949683.7	241346.4	Pipeline Associated
20	009-4-dp65g210f	3954674.2	240164.5	Pipeline Associated
21	009-5-mc63g340f	3954875.8	240133.0	Pipeline Associated
22	018-1-pm65g210f	3954724.0	240415.8	Pipeline Associated
23	018-2-pm32g135f	3954632.0	240464.0	Pipeline Associated
24	018-3-mc3107g660f	3952887.3	241184.0	Buffer A
25	018-7-pm204g295f	3949838.7	242010.7	Pipeline Associated
26	029-1-nm95g440f	3948137.1	242778.8	Moderate Single Objects
27	008-3-157g410f	3949705.6	241431.8	Pipeline Associated
28	008-4-pm20g210f	3950790.6	241210.7	Cable Associated
29	008-5-dp152370f	3952491.6	240746.9	Moderate Single Objects
30	008-6-dp67g290f	3953678.0	240446.2	Buffer B
31	008-7-dp43g215f	3954112.7	240356.6	Moderate Single Objects
32	008-8-nm54g290f	3954909.5	240251.6	Pipeline Associated
33	006-2-nm95g240f	3954690.0	240580.7	Pipeline Associated
34	013-1-dp18g210f	3952997.9	240771.3	Buffer A
35	013-2-nm8g80f	3953246.3	240559.1	Small Single Object
36	013-3-nm16g80f	3953848.6	239989.0	Small Single Object
37	013-4-dp6g90f	3954112.0	239769.1	Small Single Object
38	013-5-pd28g385f	3954853.5	239392.0	Pipeline Associated
39	013-6-pm29g210f	3955852.9	238930.0	Moderate Single Objects
40	016-15-pm39g320f	3955667.5	239290.6	Buffer C
41	016-16mc26g300f	3955039.3	239433.9	Moderate Single Objects
42	016-17-dp84g315f	3954680.0	239513.2	Pipeline Associated
43	016-18-nm6g75f	3954150.3	239751.7	Small Single Object
44	016-19-dp26g95f	3953695.1	240104.6	Small Single Object
45	016-20-nm18g210f	3953591.1	240551.2	Buffer B
46	016-21-nm37g180f	3953543.2	240737.2	Buffer B
47	014-1-mc280g1000f	3952733.7	241030.6	Buffer A
48	014-2-dp26g330f	3952017.8	241201.4	Moderate Single Objects

49	014-3-mc21g500f	3950704.8	241499.3	Cable Associated
50	014-4-pm28g210f	3950167.4	241628.6	Moderate Single Objects
51	014-5-nm92g395f	3949687.3	241724.4	Pipeline Associated
52	014-6-dp33g240f	3948152.1	242339.1	Moderate Single Objects
53	018-1-mc39g210f	3948330.1	242258.7	Buffer D
54	018-2-mc16g410f	3948705.8	241887.5	Floating Dredge Pipe
55	019-1-pm21g300f	3950787.1	241213.4	Cable Associated
56	019-2-dp27g300f	3952187.3	241180.8	Moderate Single Objects
57	019-3-mc2645g930f	3953057.0	241179.4	Buffer A
58	019-4-nm94g315f	3953551.9	241166.5	Buffer E
59	020-1-dp3678g499f	3954385.7	240949.0	Moderate Single Objects
60	002-1-mc25g257f	3947833.6	240995.4	Buffer F
61	002-2-mc142g543f	3947269.0	241331.2	Buffer F
62	002-4-dp144g448f	3948933.7	240356.9	Pipeline Associated
63	003-1-mc18g309f	3948304.7	240910.7	Moderate Single Objects
64	003-2-mc148g820f	3947443.6	241415.4	Buffer F
65	004-1-pm5g37f	3948208.6	241164.8	Small Single Object
66	4-2-dp10g74f	3947748.6	241433.1	Small Single Object
67	004-3-dp12g179f	3947556.8	241547.2	Small Single Object
68	004-4-nm24g35f	3947386.7	241651.1	Small Single Object
69	005-1-pm17g65f	3947505.0	241761.6	Small Single Object
70	Unknown target 140+g 175+f	3947808.8	241810.8	Floating Dredge Pipe
71	007-1-mc412g2827f	3948900.9	241708.8	Floating Dredge Pipe
72	008-1-mc133g896f	3948130.2	242010.4	Floating Dredge Pipe
73	009-1-mc44g233f	3949468.0	241366.4	Pipeline Associated
74	009-2-mc73g1071f	3948456.6	241961.1	Floating Dredge Pipe
75	010-1-dp77g90f	3955397.2	238927.8	Small Single Object
76	010-2-mc63g180f	3955280.8	238950.1	Small Single Object
77	010-3-pm6g51f	3955122.3	238983.9	Small Single Object
78	010-4-mc989g323f	3954736.4	239016.3	Pipeline Associated
79	010-5-pm6g56f	3954182.3	239096.8	Small Single Object
80	010-6-pm4g53f	3954076.0	239118.2	Small Single Object
81	010-7-mc14g215f	3953878.8	239142.3	Moderate Single Objects
82	010-11-dp6g141f	3949903.5	241274.2	Floating Dredge Pipe
83	010-12-dp117g345f	3949483.2	241318.2	Pipeline Associated
84	010-13-pm3g48f	3949087.0	241274.7	Floating Dredge Pipe
85	010-14-mc27g579+f	3948085.6	241625.1	Floating Dredge Pipe
86	010-15-pm196g428f	3949638.8	241454.2	Pipeline Associated
87	010-16-mc20g277f	3948249.2	242271.6	Buffer D
88	010-17-mc81g279f	3947911.4	242478.9	Buffer D
89	010-18-1-pm4g74f	3954139.3	239580.2	Small Single Object
90	010-19-dp33g272f	3953887.8	239668.5	Moderate Single Objects
91	010-20- unknown20g75+f	3953597.5	239785.1	Small Single Object
92	011-1-pm37g291f	3950660.7	241186.6	Cable Associated
93	011-2-dp107g359f	3949691.5	241619.3	Pipeline Associated
94	011-3-pm4g75f	3949431.2	241765.7	Small Single Object
95	011-4-mc32g211f	3949077.8	241968.3	Associated with barges and moorings
96	011-5-pm16g122f	3948872.0	242064.7	Associated with barges and moorings

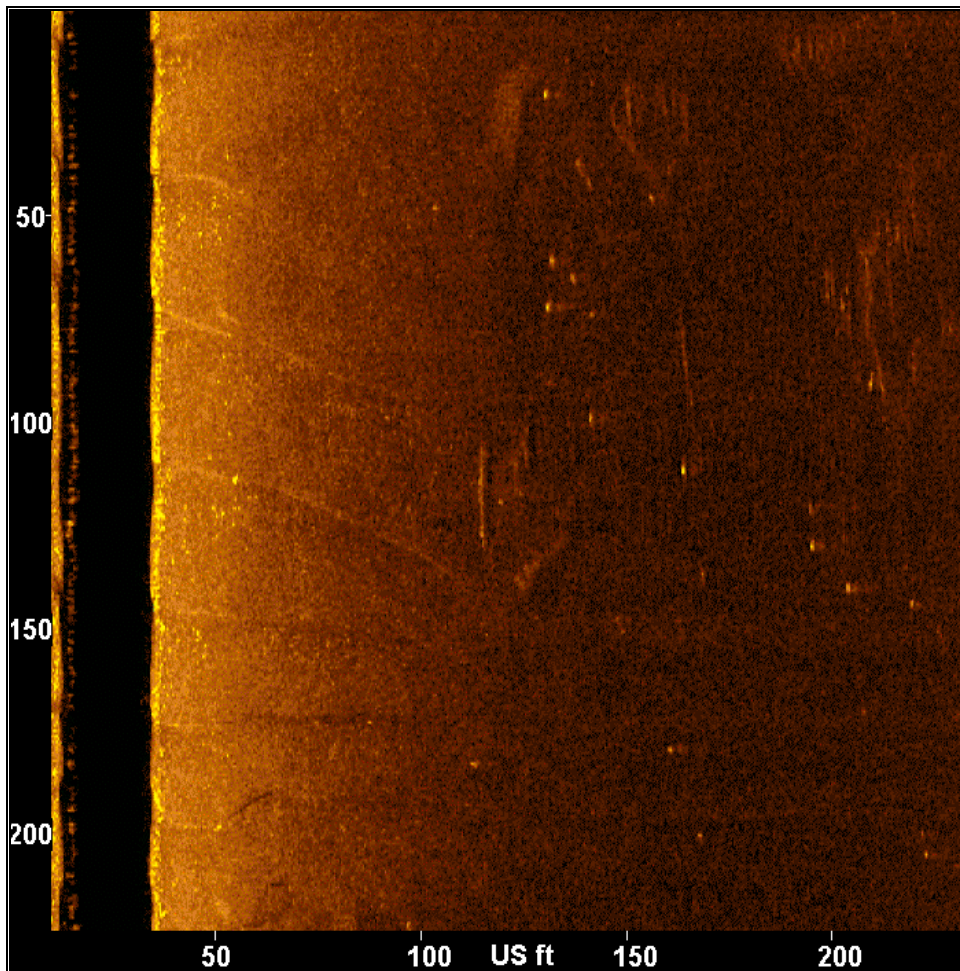
97	011-6-dp78g132f	3948320.8	242424.6	Small Single Object
98	011-7-nm7g71f	3948192.8	242495.2	Buffer D
99	011-8-dp61g214f	3954715.6	239486.0	Pipeline Associated
100	011-9-pm4g48f	3954436.4	239621.4	Small Single Object
101	011-10-dp14g145f	3953742.4	239905.2	Small Single Object
102	012-1-mc178g492f	3949799.2	241742.4	Pipeline Associated
103	012-2-mc8g388f	3949369.1	241969.2	Associated with barges and moorings
104	012-3-mc45g293f	3949019.7	242209.0	Associated with barges and moorings
105	012-4-pm10g70f	3948583.2	242469.4	Small Single Object
106	012-5-mc20g274f	3948157.0	242723.1	Moderate Single Objects
107	012-6-nm6g182f	3953513.5	240173.2	Small Single Objects
108	012-7-nm7g168f	3953292.0	240261.8	Small Single Objects
109	012-8-dp16g283f	3952445.6	240617.3	Moderate Single Objects
110	012-9-pm4g92f	3952089.2	240773.9	Small Single Object
111	012-10-dp12g176f	3951541.9	240995.3	Small Single Object
112	012-11-dp8g170f	3950757.2	241322.3	Cable Associated
113	012-12-pm4g103f	3950408.3	241461.9	Small Single Object
114	012-13-mc283g884f	3949627.7	241794.5	Pipeline Associated
115	013-1-dp47g520f	3949945.2	241830.5	Pipeline Associated
116	013-2-dp47g530f	3949624.7	242024.3	Pipeline Associated
117	013-2-dp4g140f	3949625.3	242024.0	Pipeline Associated
118	013-3-dp8g170f	3949412.5	242152.8	Small Single Object
119	013-5-nm11g105f	3948790.1	242525.8	Small Single Object
120	013-6-dp4g75f	3948498.8	242693.1	Small Single Object
121	013-6-dp4g120f	3948319.5	242801.0	Small Single Object
122	013-1-dp9g135f	3952961.1	240593.4	Small Single Object
123	013-2-dp18g160f	3952408.9	240813.5	Moderate Single Objects
124	013-4-dp106g185f	3951173.3	241322.7	Moderate Single Objects
125	013-5-nm10g65f	3950886.8	241438.9	Cable Associated
126	013-6-dp21g120f	3950764.0	241491.2	Small Single Object
127	013-8-pm74g280f	3949859.7	241894.3	Pipeline Associated
128	014-1-dp32g200f	3954026.3	240325.2	Moderate Single Objects
129	014-2-nm17g120f	3953823.7	240397.9	Small Single Object
130	014-3-nm14g135f	3953623.9	240488.1	Buffer B
131	014-4-pm13g110f	3953346.3	240595.1	Buffer B
132	014-5-pm12g125f	3952924.2	240779.1	Buffer A
133	014-6-dp17g215f	3952768.0	240841.9	Buffer A
134	014-7-dp11g200f	3952099.2	241111.8	Moderate Single Objects
135	014-8-dp6g115f	3951807.5	241235.3	Small Single Object
136	014-9-mc35g525f	3950941.2	241591.6	Cable Associated
137	014-10-dp3g70f	3950410.9	241817.2	Small Single Object
138	014-1-pm80g280f	3949957.2	242031.6	Pipeline Associated
139	014-2-dp18g70f	3949483.3	242315.2	Small Single Object
140	014-3-dp11g65f	3949176.1	242499.1	Small Single Object
141	014-4-dp17g85f	3949120.3	242531.8	Small Single Object
142	14-5-dp722g320f	3948895.6	242657.3	Cable Associated, PALSS-10
143	015-1-mc141g410f	3950044.4	242175.2	Pipeline Associated
144	015-2-dp12g155f	3949769.3	242332.3	Pipeline Associated
145	015-3-dp21g20f	3949297.0	242613.9	Small Single Object
146	015-4-mc21g80f	3949084.0	242732.4	Small Single Object

147	015-5-nm12g30f	3948558.4	243051.7	Small Single Object
148	015-6-mc42g125f	3948437.1	243121.0	Small Single Objects
149	015-1-pm22g355f	3954740.9	240215.3	Pipeline Associated
150	015-2-mc95g525f	3953676.3	240650.0	Buffer B
151	015-3-dp126g235f	3953382.6	240778.8	Buffer B
152	015-4-mc309g640g	3952749.2	241035.9	Buffer A
153	016-1-pm18g50f	3950816.4	242002.0	Small Single Object
154	016-3-dp357g110f	3949926.3	242430.9	Pipeline Associated
155	015-1-pm57g35f	3949152.9	242890.2	Small Single Object
156	016-2-dp93g75f	3948543.5	243246.3	Small Single Object
157	016-1-pm90g440f	3954756.4	240368.1	Pipeline Associated
158	016-2-nm12g65f	3954297.4	240561.1	Small Single Object
159	016-3-pm6g55f	3953864.2	240736.4	Buffer B
160	016-4-pm24g320f	3952567.2	241274.7	Buffer A
161	016-5-dp8g60f	3952174.6	241437.5	Small Single Object
162	016-6-nm33g280f	3951186.9	241845.4	Cable Associated
163	016-7-pm9g35f	3951094.2	241883.9	Cable Associated
164	016-8-nm13g210f	3950935.4	241949.7	Moderate Single Objects
165	017-1-dp69g55f	3951617.7	241840.0	Small Single Object
166	017-2-nm27g355f	3951296.1	241982.0	Cable Associated
167	017-3-nm101g560f	3950190.0	242447.7	Pipeline Associated
168	017-1-dp17g55f	3949386.7	242952.3	Small Single Object
169	017-2-dp10g75f	3949195.8	243052.1	Small Single Object
170	017-3-pm8g50f	3949105.9	243102.1	Small Single Object
171	017-4-dp5g120f	3949031.1	243150.9	Small Single Object
172	017-2-nm199g210f	3954745.7	240555.1	Pipeline Associated
173	017-3-dp29g120f	3953919.3	240893.2	Small Single Object
174	018-1-pm26g90f	3954748.4	240729.3	Pipeline Associated
175	018-2-pm19g50f	3953700.6	241163.9	Buffer E
176	018-3-mc27g65f	3953550.7	241226.2	Buffer E
177	018-4-pm255g60f	3953336.0	241319.4	Small Single Object
178	018-3-dp62g145f	3952794.4	241537.7	Moderate Single Objects
179	018-4-dp91g185f	3952569.8	241633.4	Moderate Single Objects
180	018-5-nm35g190f	3951194.7	241877.4	Cable Associated
181	018-6-nm471g1000f	3949205.8	241916.4	Associated with barges and moorings
182	018-1-nm17g125f	3949715.6	242923.4	Small Single Objects
183	018-2-dp32g165f	3949591.1	243003.6	Moderate Single Objects
184	018-3-nm12g160f	3949442.3	243111.2	Small Single Objects
185	018-4-dp14g120f	3948837.2	243461.2	Small Single Objects
186	018-1-nm20g365f	3951468.0	242087.3	Cable Associated
187	018-2-nm17g150f	3950305.3	242581.5	Pipeline Associated
188	018-3-pm290f	3949991.9	242791.4	Pipeline Associated
189	019-1-pm12g40f	3952361.9	241905.4	Small Single Object
190	019-1-mc206g480f	3954810.6	240886.4	Pipeline Associated
191	019-2-pm39g55f	3954306.4	241099.5	Small Single Object
192	019-3-nm23g45f	3953812.6	241296.4	Small Single Object
193	019-4-dp21g55f	3953768.0	241315.0	Small Single Object
194	019-5-dp164g145f	3953543.6	241407.5	Moderate Single Objects
195	019-6-nm11g25f	3953341.8	241504.2	Buffer G
196	019-7-dp13g50f	3953293.0	241535.4	Buffer G

197	019-8-nm66g105f	3953234.4	241561.1	Buffer G
198	020-1-nm111g290f	3954708.9	241104.1	Pipeline Associated
199	020-2-pm158g50f	3954311.1	241270.7	Small Single Object
200	020-3-pm208g70f	3954244.0	241302.6	Small Single Object
201	020-4-nm9g10f	3954072.2	241359.3	Small Single Object
202	020-5-dp16g15f	3953903.8	241413.4	Small Single Object
203	020-7-dp109g80f	3953616.1	241466.6	Small Single Object
204	020-8-mc169g140f	3953240.2	241532.5	Buffer G
205	020-9-pm21g60f	3952693.4	241659.7	Small Single Object
206	020-10-mc20g30f	3951587.9	241826.1	Small Single Object
207	020-11-dp34g40f	3951371.8	241876.9	Cable Associated
208	020-12-nm27g160f	3951212.4	241921.1	Cable Associated
209	020-13-dp25g30f	3950936.8	242004.2	Small Single Object
210	020-14-mc138g235f	3949777.3	241810.2	Pipeline Associated
211	020-15-nm695g560f	3949223.4	241929.9	Associated with barges and moorings
212	020-16-pm173g65f	3948882.4	242095.4	Associated with barges and moorings
213	031-1-pm155g360f	3948985.3	240411.8	Pipeline Associated
214	031-2-dp8g165f	3949213.0	240258.9	Pipeline Associated
215	031-3-dp28g260f	3950285.0	239906.7	Moderate Single Objects
216	031-4-dp9g80f	3950555.9	239829.1	Small Single Object
217	031-5-dp9g80f	3951528.6	239635.3	Small Single Object
218	031-6-pm4g20f	3953363.4	239308.1	Small Single Object
219	031-7-pm4g50f	3953555.0	239314.5	Small Single Object
220	031-8-nm38g570f	3954724.1	239175.6	Pipeline Associated
221	031-9-dp16g255f	3955740.9	239020.8	Moderate Single Objects
222	033-1-pm7g70f	3952315.8	239628.3	Small Single Object
223	033-2-nm13g100f	3952858.3	239549.3	Small Single Object
224	033-3-pm8g80f	3954200.0	239415.8	Small Single Object
225	033-4-mc16g440f	3954553.1	239361.9	Pipeline Associated
226	033-5-dp7g200f	3955326.6	239285.6	Moderate Single Objects
227	033-6-nm4g100f	3955430.4	239264.1	Small Single Objects
228	033-6-nm26g240f	3955757.9	239175.0	Buffer C
229	034-1-dp7g120f	3952846.7	239681.4	Moderate Single Objects
230	034-2-pm6g30f	3953123.0	239657.7	Small Single Object
231	034-3-dp3g90f	3953664.9	239649.4	Small Single Object
232	034-4-dp29g255f	3953886.8	239634.2	Moderate Single Objects
233	034-5-dp6g135f	3954348.8	239575.6	Small Single Object
234	034-6-nm3g65f	3954535.5	239537.6	Pipeline Associated
235	034-7-dp81g280f	3954779.1	239505.4	Pipeline Associated
236	034-8-dp8g60f	3954980.0	239476.1	Small Single Object
237	034-9-nm18g90f	3955090.7	239455.6	Small Single Object

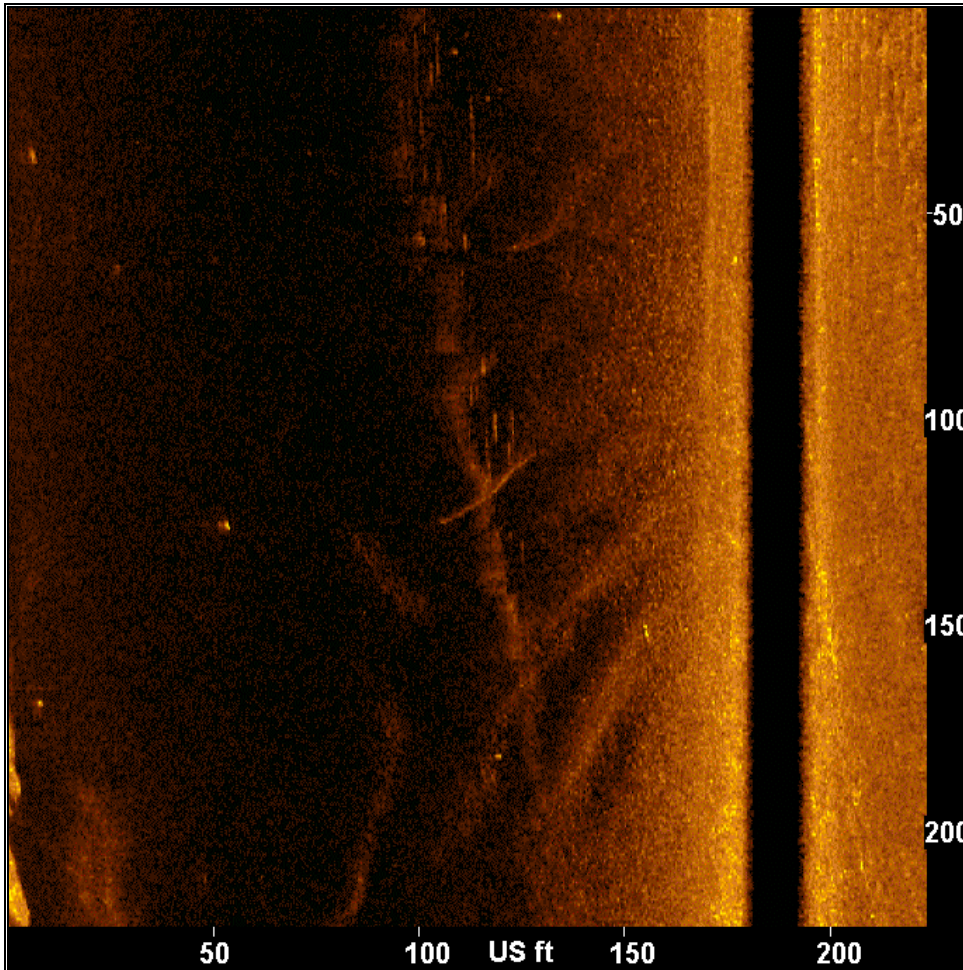
Table B: Pass A Loutre Sonar Contacts

PALSS-01



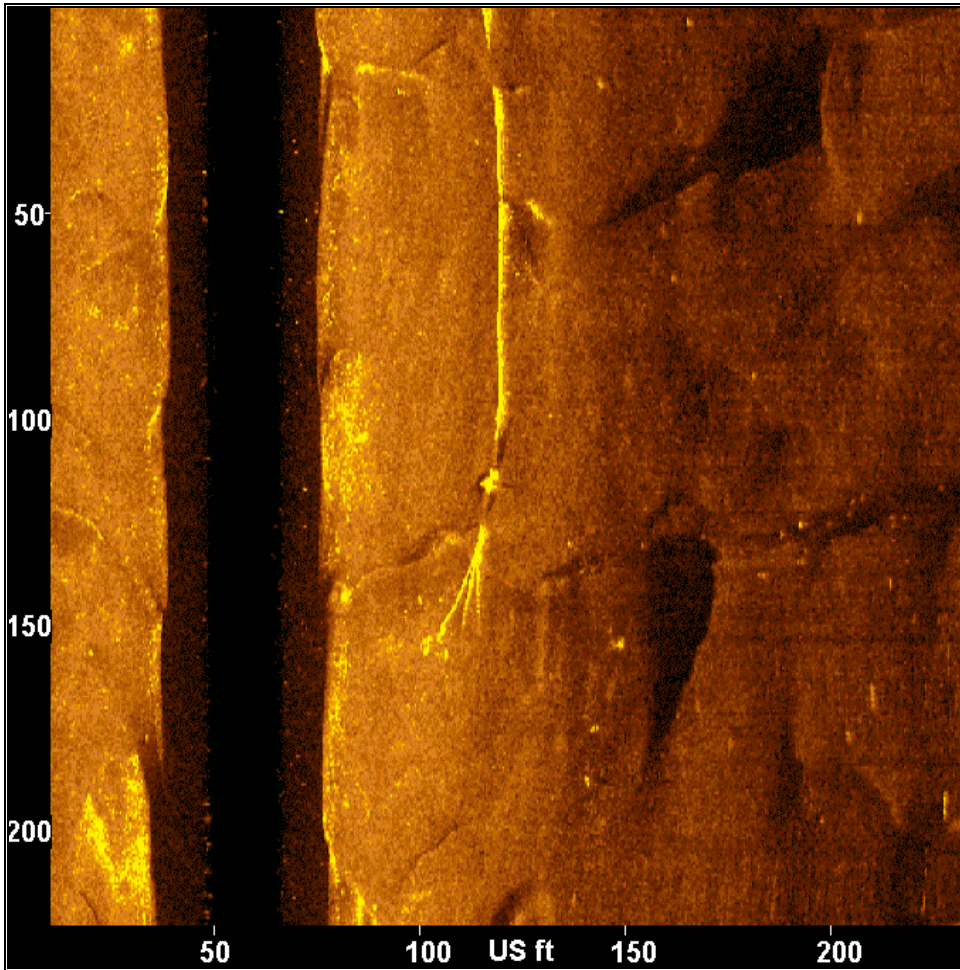
Contact Info: PALSS-01	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/15/2010 12:55:13 • Click Position (Projected Coordinates) (X) 3953152.00 (Y) 239431.75 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY15\PAL-10-31_W.jsf • Ping Number: 97110 • Range to Target: 28.39 US Feet • Fish Height: 3.82 US Feet • Event Number: 0 • Line Name: PAL-10-31_W 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Linear object, possibly pipe, cable or piling.</p>

PALSS-02



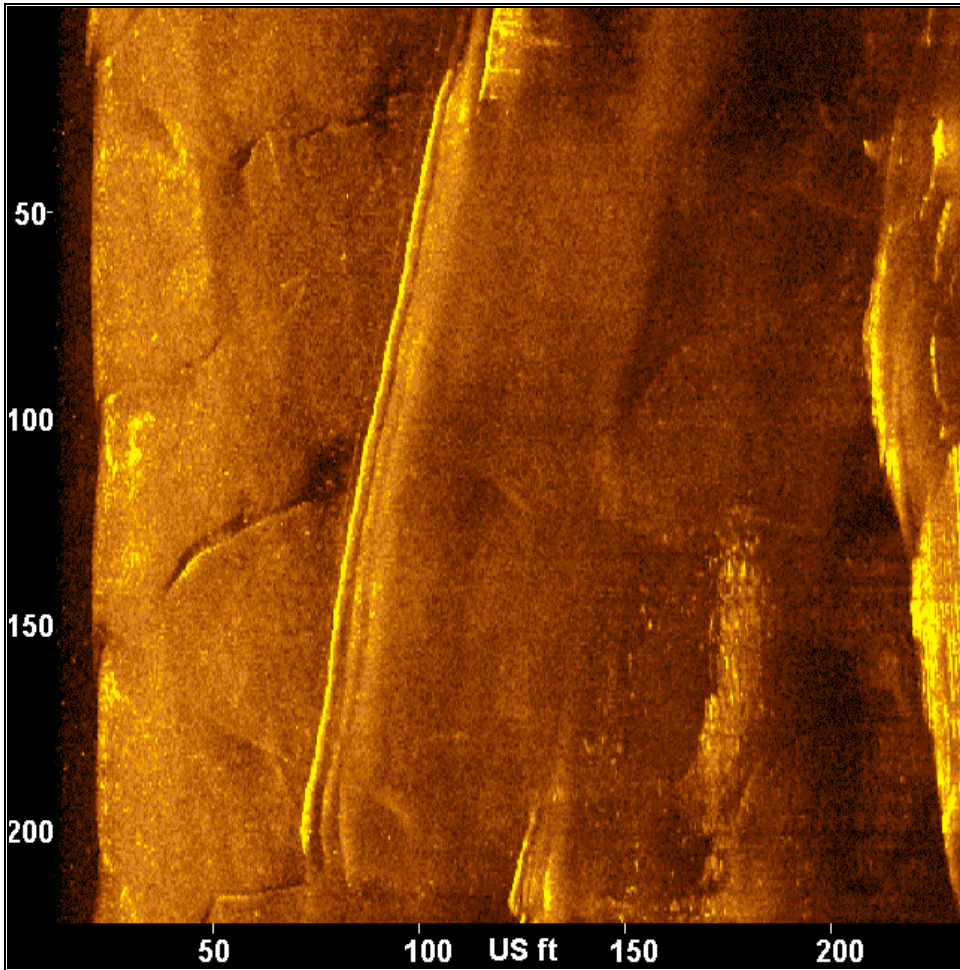
Contact Info: PALSS-02	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/15/2010 13:04:00 • Click Position (Projected Coordinates) (X) 3949956.50 (Y) 239967.34 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY15\PAL-10-31_W.jsf • Ping Number: 102036 • Range to Target: 21.43 US Feet • Fish Height: 2.29 US Feet • Event Number: 0 • Line Name: PAL-10-31_W 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Linear object, possibly cable.</p>

PALSS-03



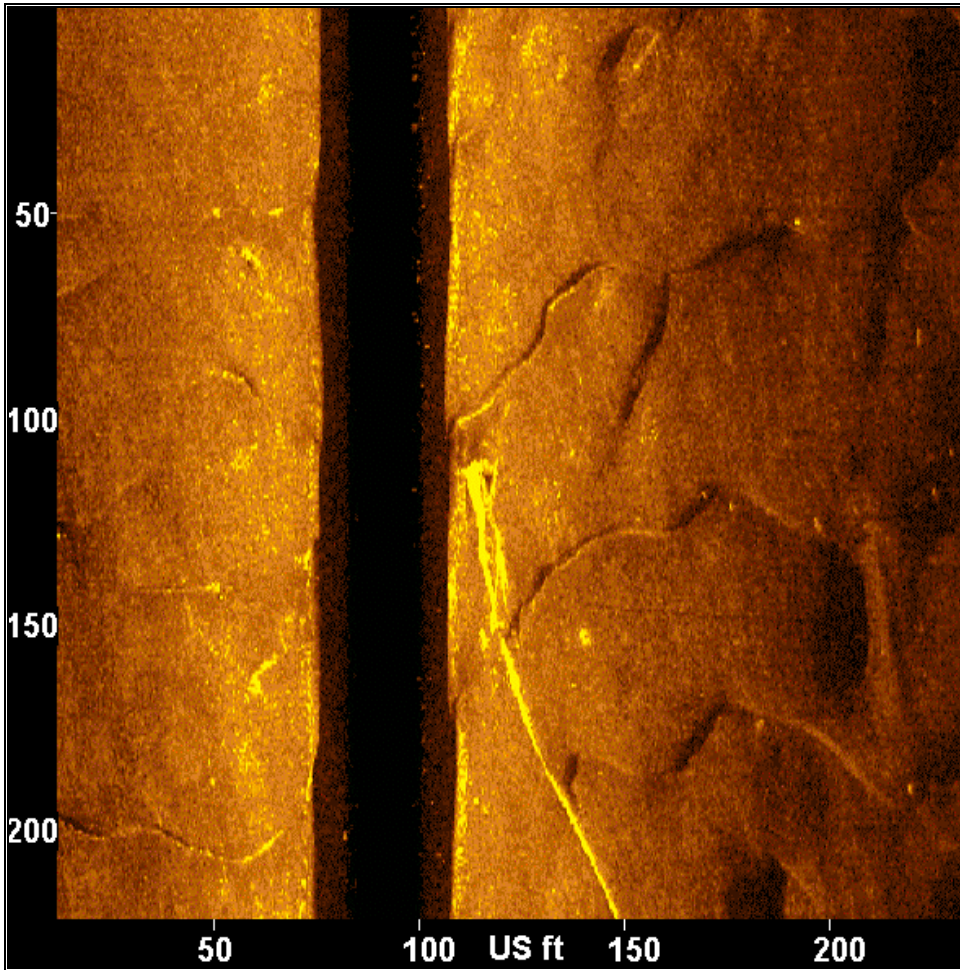
Contact Info: PALSS-03	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/11/2010 18:19:48 • Click Position (Projected Coordinates) (X) 3949628.75 (Y) 241828.75 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER-JULY11\PAL-10-21.jsf • Ping Number: 30615 • Range to Target: 18.09 US Feet • Fish Height: 5.91 US Feet • Event Number: 0 • Line Name: PAL-10-21 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Boat mooring and associated cable.</p>

PALSS-04



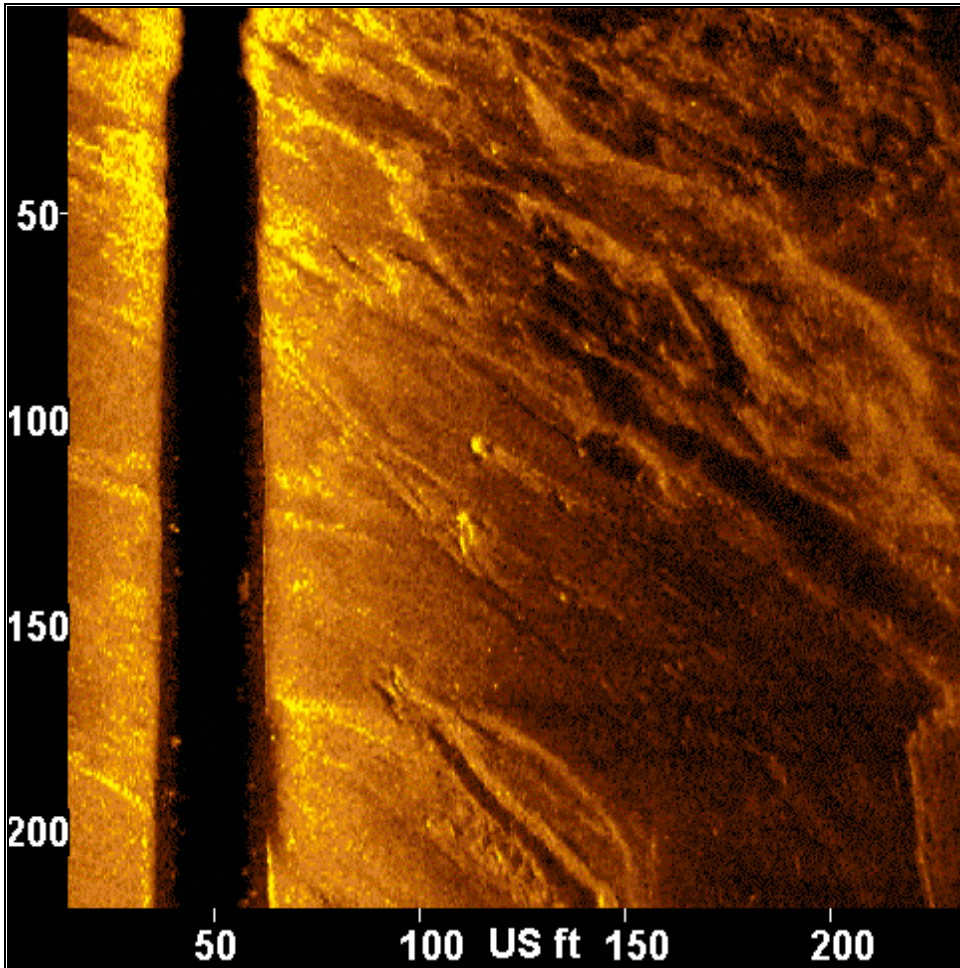
Contact Info: PALSS-04	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/11/2010 18:20:46 • Click Position (Projected Coordinates) (X) 3949296.50 (Y) 242010.33 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER-JULY11\PAL-10-21.jsf • Ping Number: 31160 • Range to Target: 34.51 US Feet • Fish Height: 5.77 US Feet • Event Number: 0 • Line Name: PAL-10-21 	<ul style="list-style-type: none"> Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Side of barge

PALSS-05



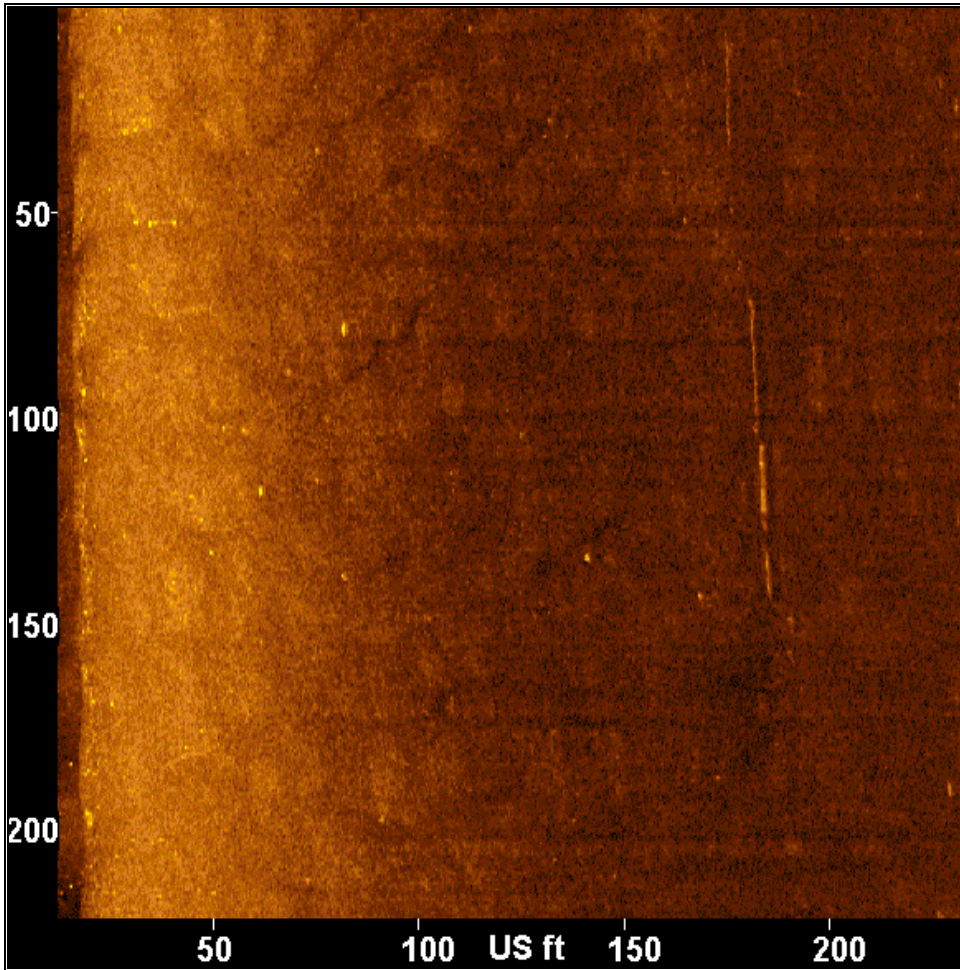
Contact Info: PALSS-05	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/11/2010 18:21:40 • Click Position (Projected Coordinates) (X) 3948917.50 (Y) 242087.66 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER-JULY11\PAL-10-21.jsf • Ping Number: 31667 • Range to Target: 7.65 US Feet • Fish Height: 5.04 US Feet • Event Number: 0 • Line Name: PAL-10-21 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Mooring and associated cable.</p>

PALSS-06



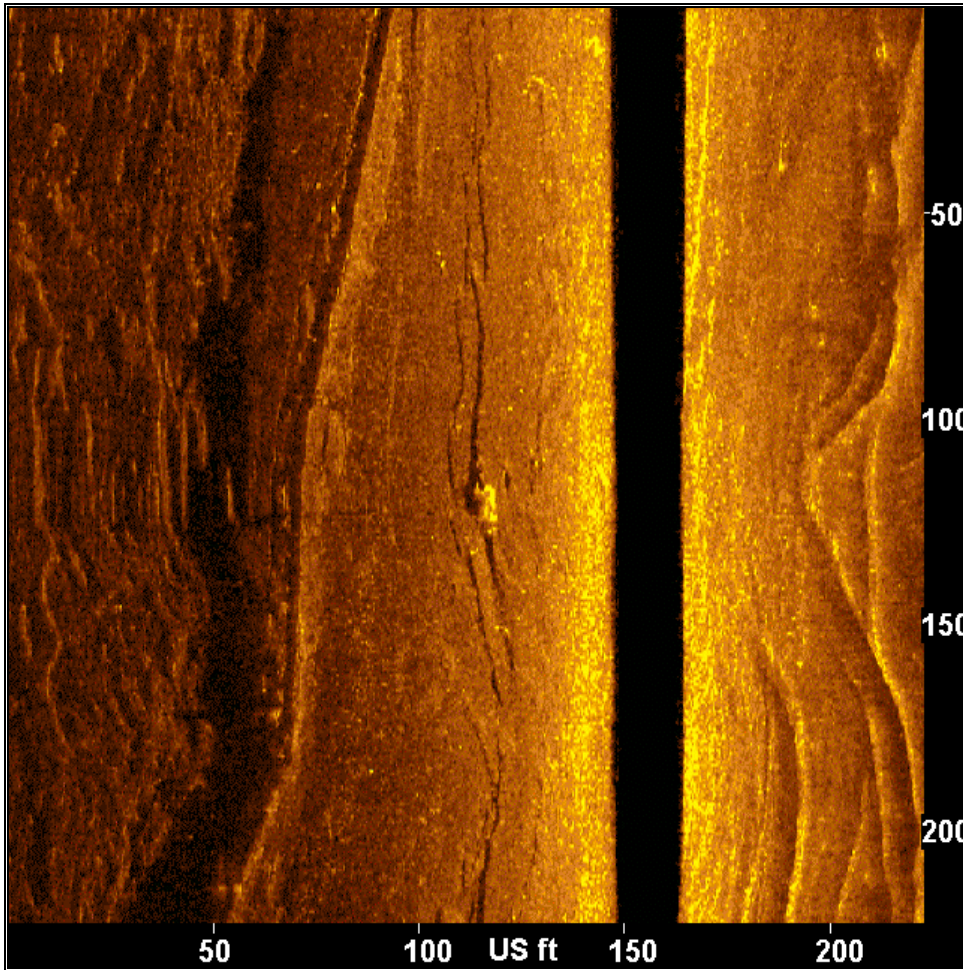
Contact Info: PALSS-06	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/11/2010 18:23:03 • Click Position (Projected Coordinates) (X) 3948737.75 (Y) 242681.31 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER-JULY11\PAL-10-21.jsf • Ping Number: 32438 • Range to Target: 20.46 US Feet • Fish Height: 3.85 US Feet • Event Number: 0 • Line Name: PAL-10-21 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Scattered debris.</p>

PALSS-07



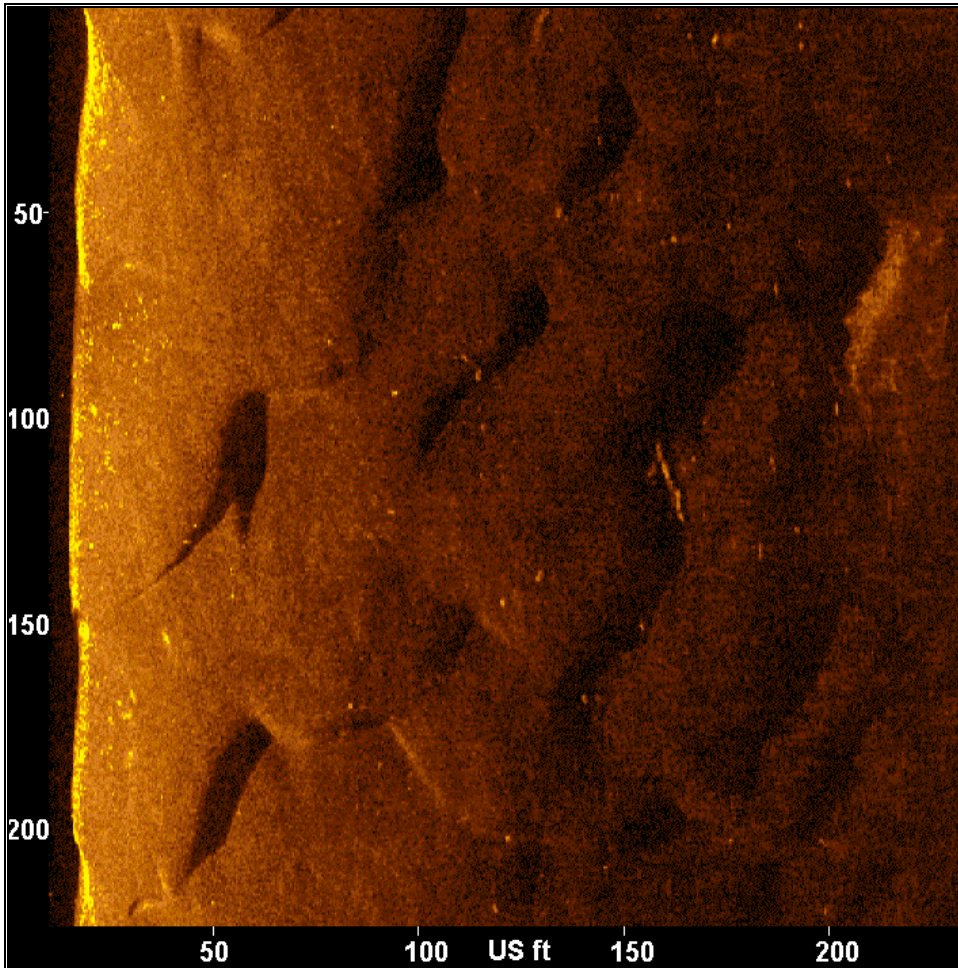
Contact Info: PALSS-07	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/12/2010 12:09:29 • Click Position (Projected Coordinates) (X) 3954939.75 (Y) 240852.11 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY12\PAL-10-18_W.jsf • Ping Number: 36212 • Range to Target: 56.08 US Feet • Fish Height: 5.18 US Feet • Event Number: 0 • Line Name: PAL-10-18_W 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Linear object, possibly pipe, cable or piling.</p>

PALSS-08



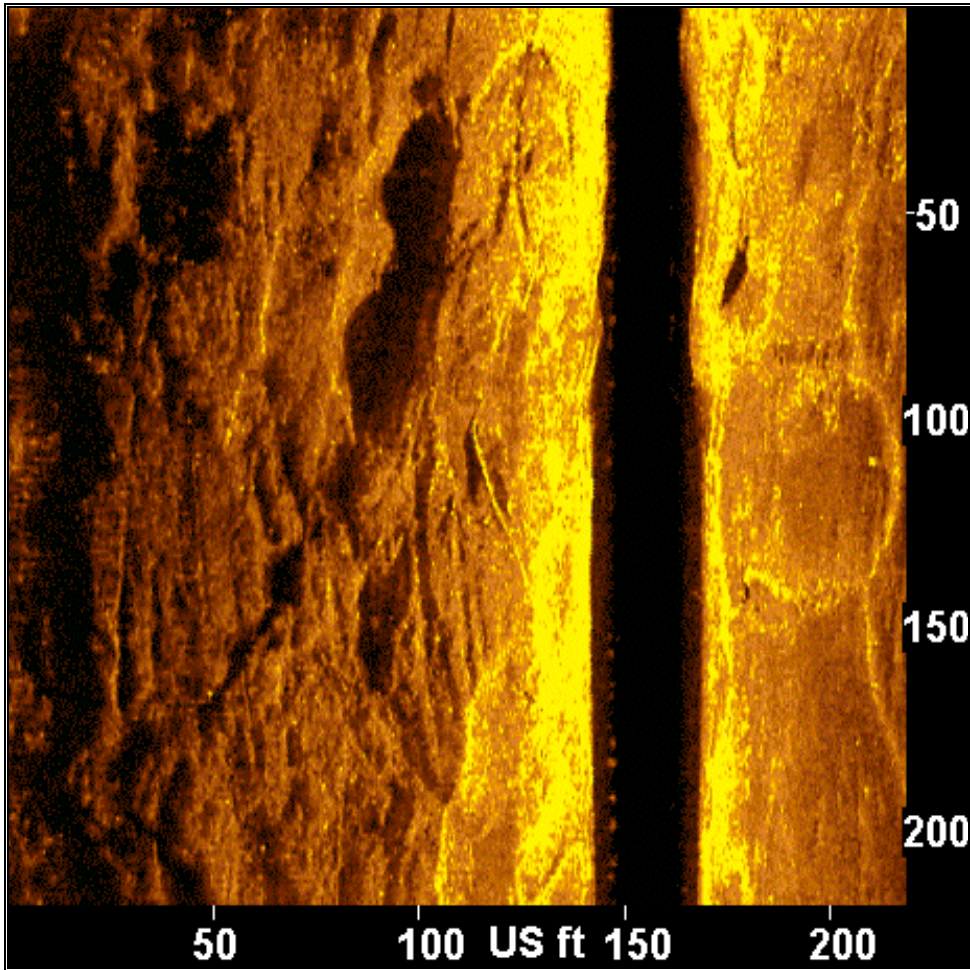
Contact Info: PALSS-08	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/12/2010 12:19:58 • Click Position (Projected Coordinates) (X) 3950453.75 (Y) 242022.27 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY12\PAL-10-18_W.jsf • Ping Number: 42085 • Range to Target: 11.97 US Feet • Fish Height: 2.57 US Feet • Event Number: 0 • Line Name: PAL-10-18_W 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Small debris.</p>

PALSS-09



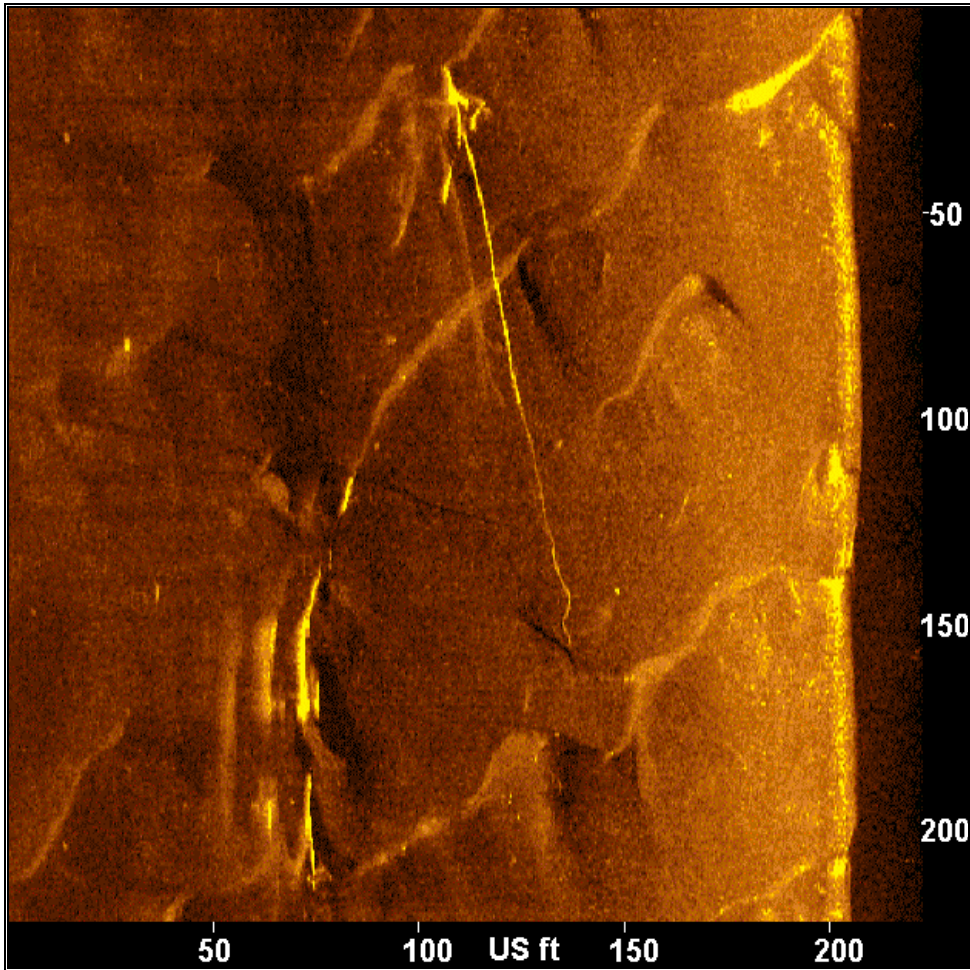
Contact Info: PALSS-09	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/15/2010 16:51:17 • Click Position (Projected Coordinates) (X) 3954128.25 (Y) 240988.20 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY15\PAL-10-17_W_1OF2.jsf • Ping Number: 229453 • Range to Target: 49.26 US Feet • Fish Height: 4.93 US Feet • Event Number: 0 • Line Name: PAL-10-17_W_1OF2 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Linear object, possibly pipe, cable or piling.</p>

PALSS-10



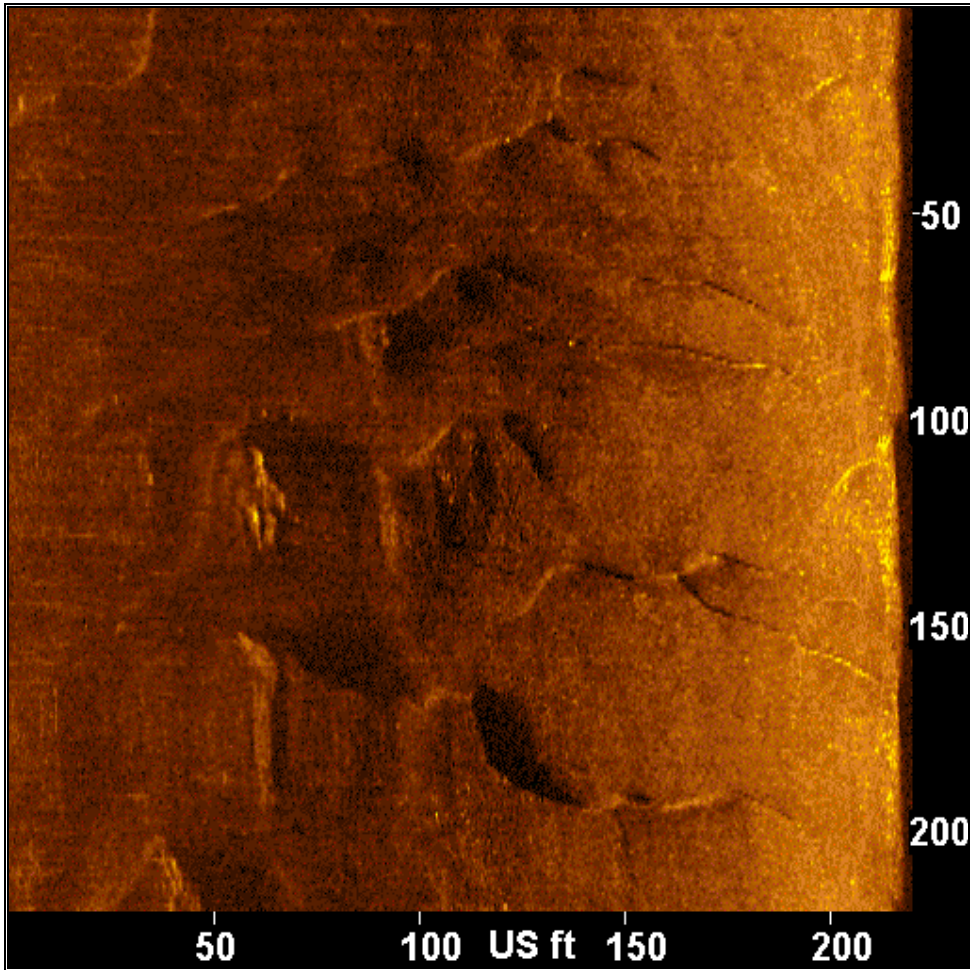
Contact Info: PALSS-10	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/15/2010 17:16:36 • Click Position (Projected Coordinates) (X) 3948879.75 (Y) 242708.00 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY15\PAL-10-14_E.jsf • Ping Number: 243646 • Range to Target: 11.69 US Feet • Fish Height: 4.24 US Feet • Event Number: 0 • Line Name: PAL-10-14_E 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Cable.</p>

PALSS-11



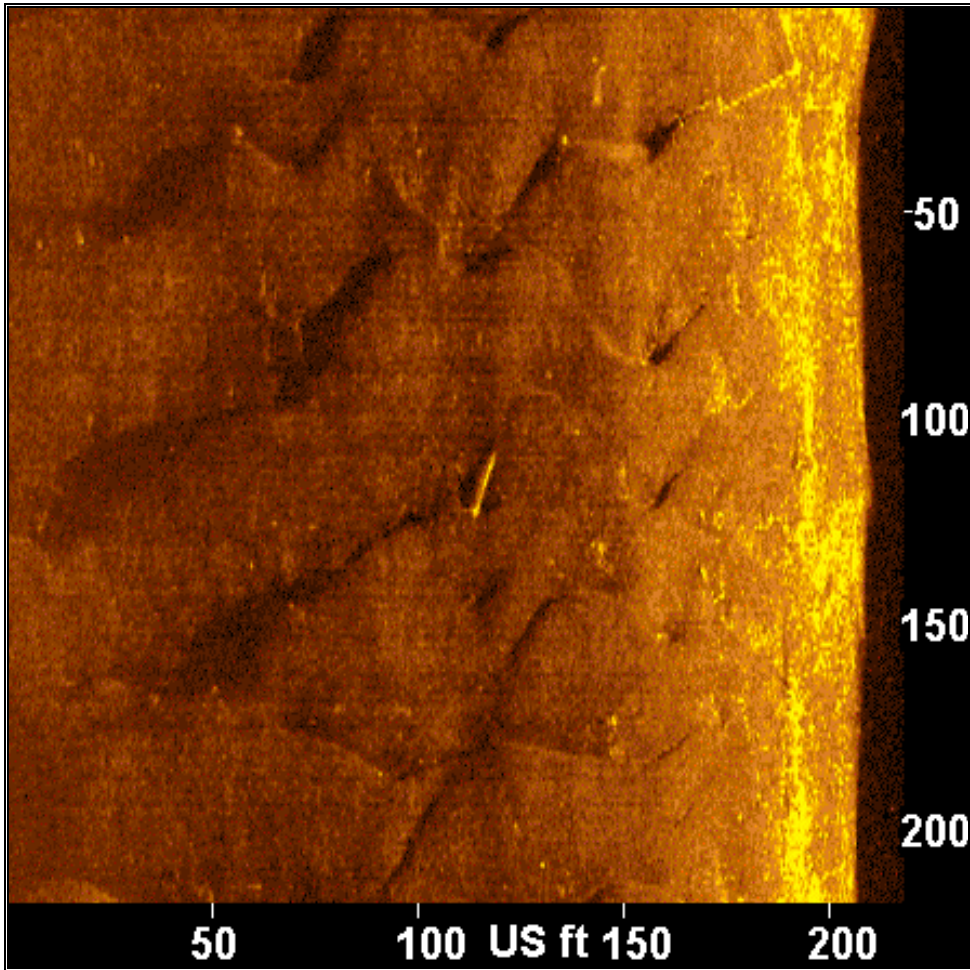
Contact Info: PALSS-11	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/19/2010 09:39:13 • Click Position (Projected Coordinates) (X) 3949608.75 (Y) 241885.50 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY19\PAL-10-13_W.jsf • Ping Number: 6109 • Range to Target: 42.30 US Feet • Fish Height: 8.55 US Feet • Event Number: 0 • Line Name: PAL-10-13_W 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Mooring, associated cable, and boat.</p>

PALSS-12



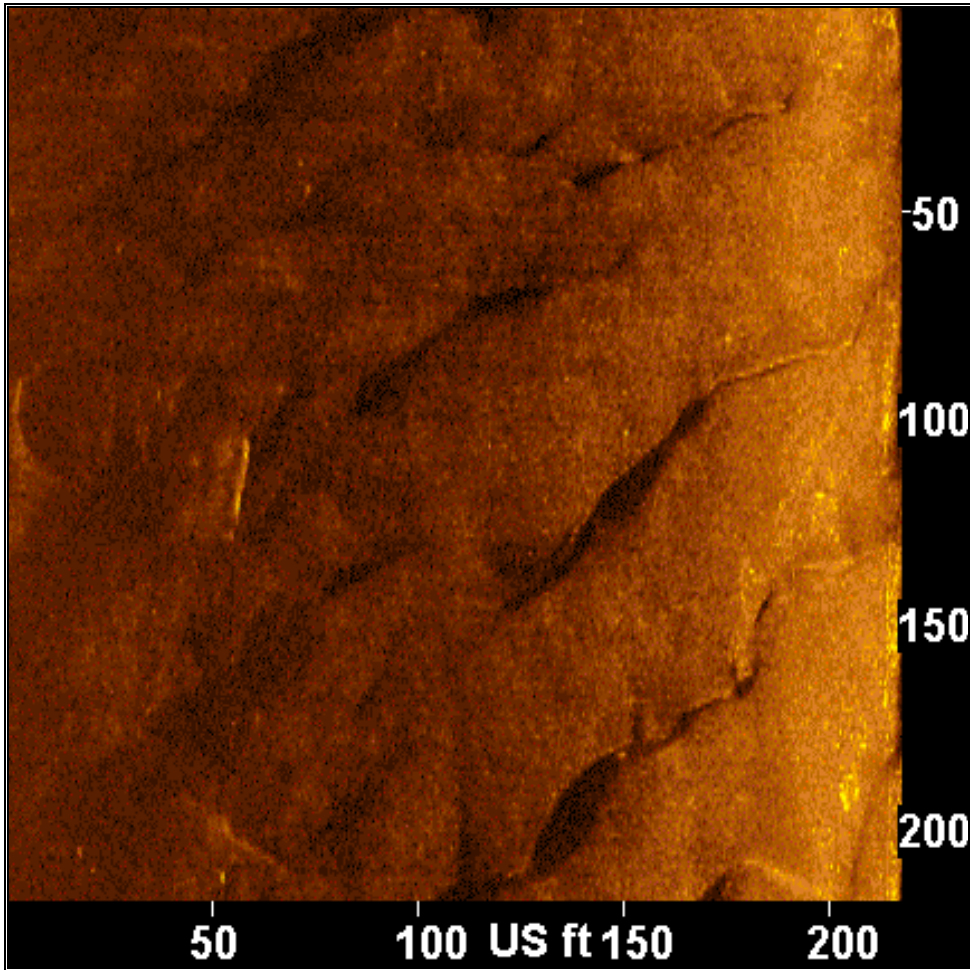
Contact Info: PALSS-12	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/16/2010 16:01:38 • Click Position (Projected Coordinates) (X) 3948873.00 (Y) 241882.94 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY16\PAL-10-11_W_10F2.jsf • Ping Number: 29466 • Range to Target: 51.91 US Feet • Fish Height: 5.63 US Feet • Event Number: 0 • Line Name: PAL-10-11_W_10F2 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Possible modern debris.</p>

PALSS-13



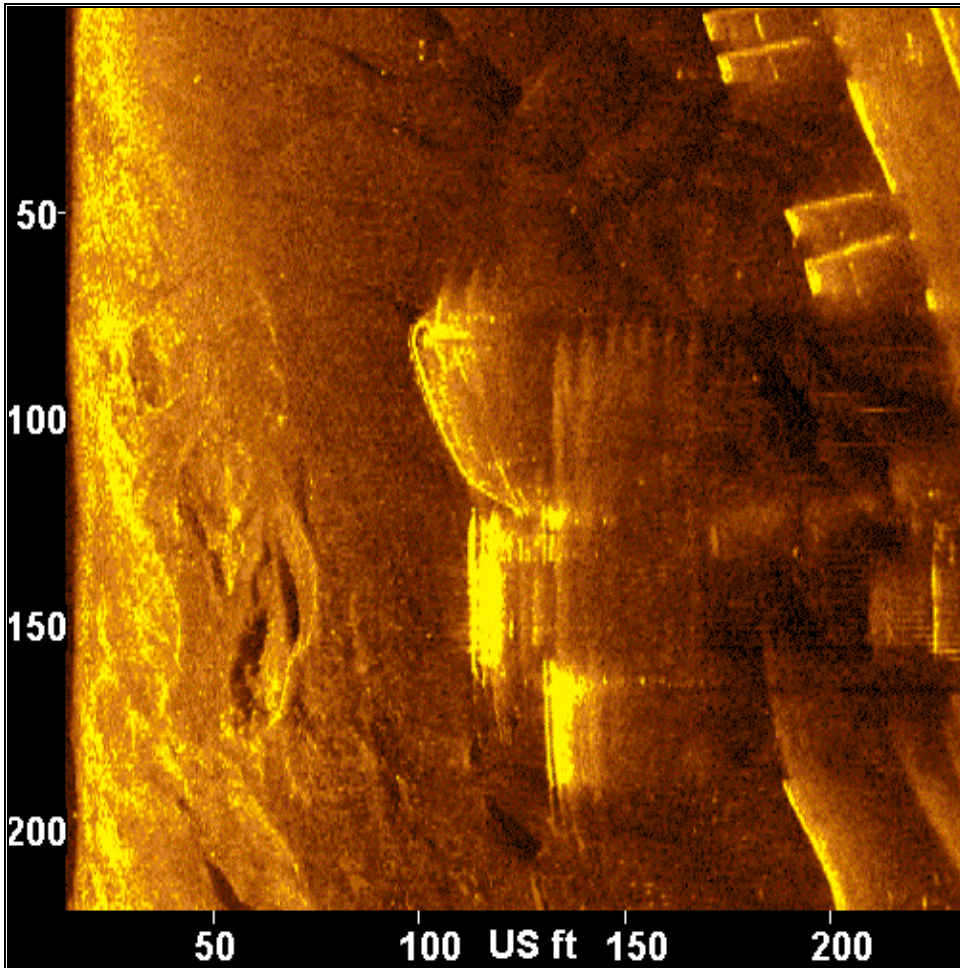
Contact Info: PALSS-13	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/11/2010 18:45:17 • Click Position (Projected Coordinates) (X) 3955766.75 (Y) 240211.16 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER-JULY11\PAL-10-10.jsf • Ping Number: 44899 • Range to Target: 36.46 US Feet • Fish Height: 7.64 US Feet • Event Number: 0 • Line Name: PAL-10-10 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Linear object, possibly pipe, cable or piling.</p>

PALSS-14



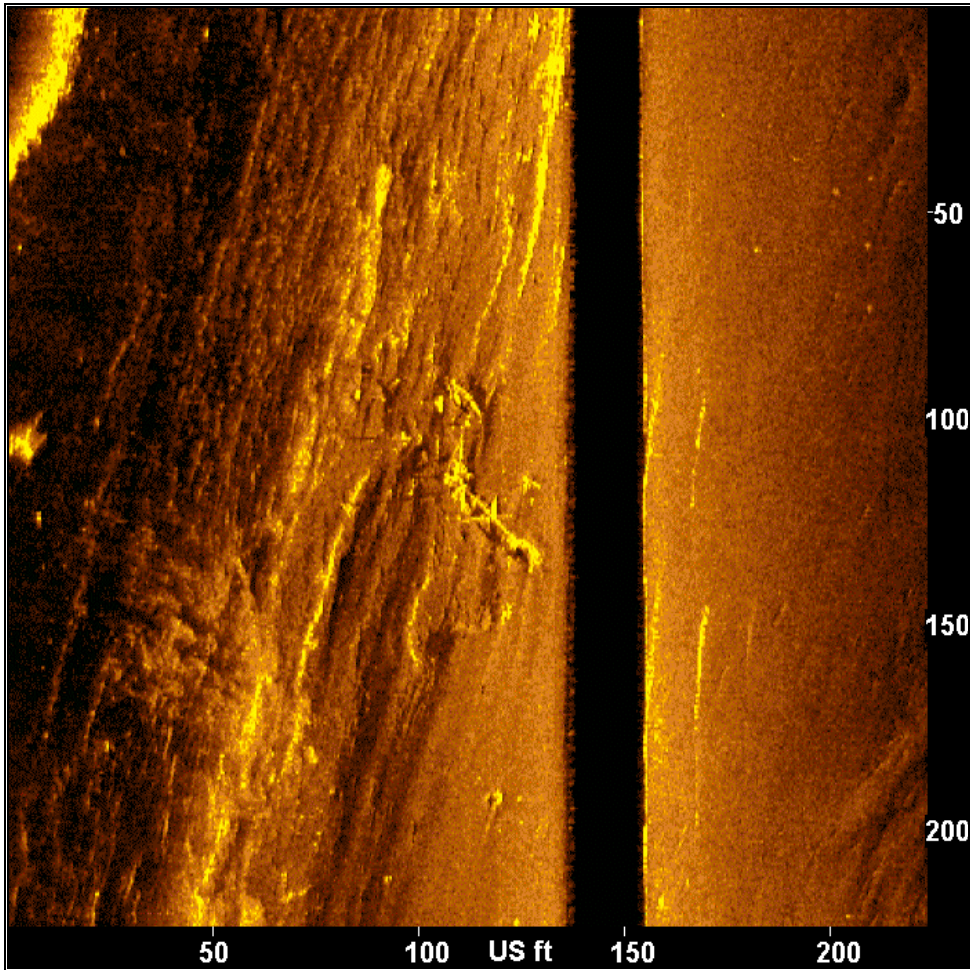
Contact Info: PALSS-14	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/16/2010 16:10:09 • Click Position (Projected Coordinates) (X) 3949163.50 (Y) 241935.31 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY16\PAL-10-10_E.jsf • Ping Number: 34247 • Range to Target: 53.71 US Feet • Fish Height: 4.79 US Feet • Event Number: 0 • Line Name: PAL-10-10_E 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Linear object, possibly pipe, cable or piling.</p>

PALSS-15



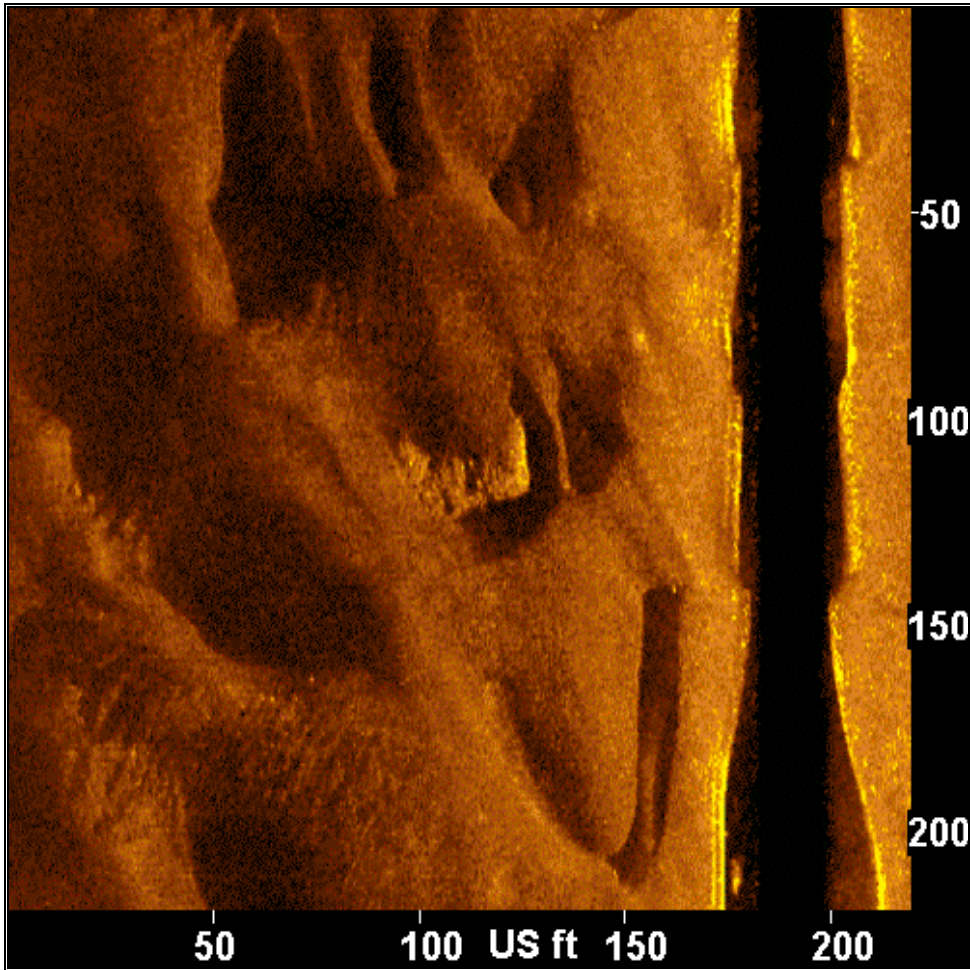
Contact Info: PALSS-15	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/15/2010 18:08:40 • Click Position (Projected Coordinates) (X) 3947879.00 (Y) 241977.00 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY15\PAL-10-08_E.jsf • Ping Number: 272838 • Range to Target: 38.41 US Feet • Fish Height: 4.79 US Feet • Event Number: 0 • Line Name: PAL-10-08_E 	<ul style="list-style-type: none"> Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Boats and floating dredge pipe.

PALSS-16



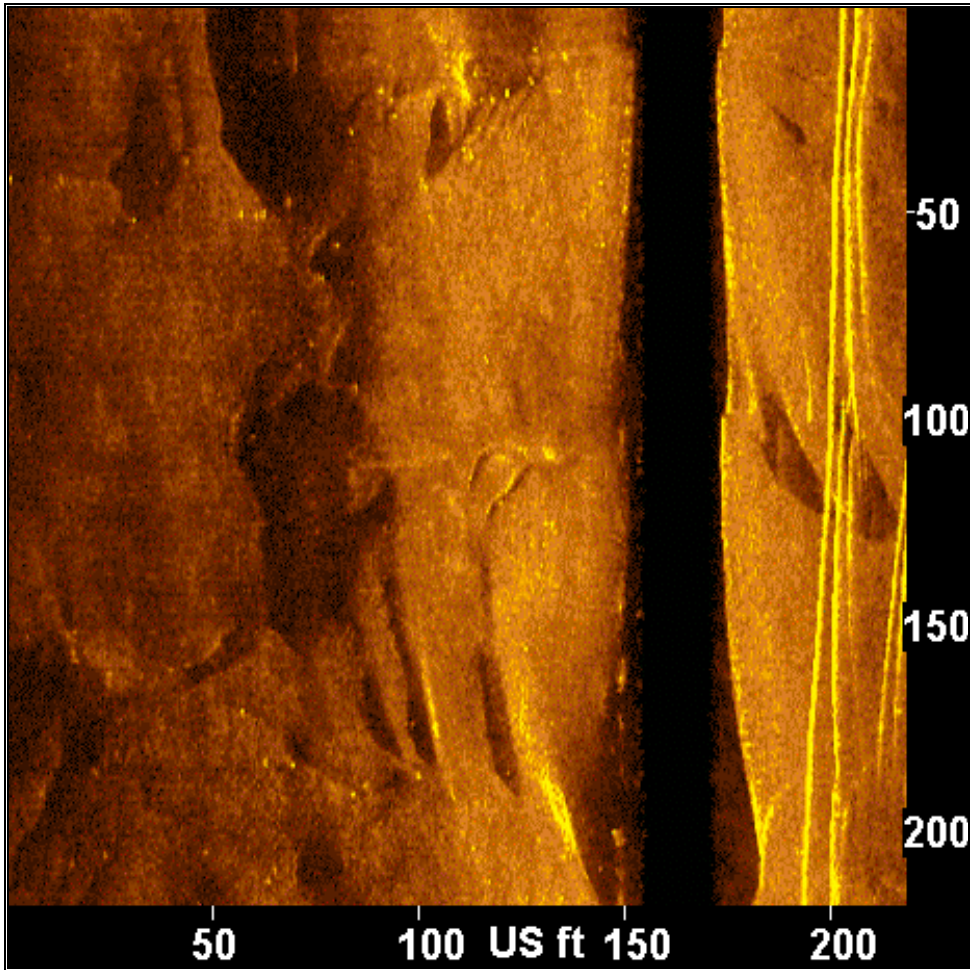
Contact Info: PALSS-16	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/15/2010 11:23:18 • Click Position (Projected Coordinates) (X) 3947075.50 (Y) 241425.47 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER_JULY15\PAL-10-02_W.jsf • Ping Number: 45649 • Range to Target: 8.77 US Feet • Fish Height: 3.26 US Feet • Event Number: 0 • Line Name: PAL-10-02_W 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Debris.</p>

PALSS-17



Contact Info: PALSS-17	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/11/2010 18:33:35 • Click Position (Projected Coordinates) (X) 3950185.25 (Y) 241386.50 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER-JULY11\PAL-10-07.jsf • Ping Number: 38339 • Range to Target: 22.40 US Feet • Fish Height: 4.33 US Feet • Event Number: 0 • Line Name: PAL-10-07 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Buffer H Classification 1: Classification 2: Area: Block: Description: Possible remains of a small vessel.</p>

PALSS-18



Contact Info: PALSS-18	User Entered Info
<ul style="list-style-type: none"> • Sonar Time at Target: 07/11/2010 18:32:49 • Click Position (Projected Coordinates) (X) 3949801.00 (Y) 241556.02 • Map Proj: • Acoustic Source File: C:\SonarWiz-Projects\Pass A Loutre\data\PARKER-JULY11\PAL-10-07.jsf • Ping Number: 37911 • Range to Target: 13.92 US Feet • Fish Height: 3.54 US Feet • Event Number: 0 • Line Name: PAL-10-07 	<p>Target Height >= 0.0 US Feet Target Length 0.0 US Feet Target Shadow: 0.0 US Feet Target Width: 0.0 US Feet Mag Anomaly: Avoidance Area: Classification 1: Classification 2: Area: Block: Description: Possible cable.</p>

July 7, 2010

Mr. Beau C. Suthard
Director, Tampa Bay Regional Office
Coastal Planning & Engineering, Inc.
Tampa Bay Regional Office
101 16th Avenue South, Suite 4
St. Petersburg, FL 33701

RE: Sediment Sampling and Analysis Letter Report No. 5
Analytical Results for Samples Collected June 12 through 14, 2010
and June 19 through 25, 2010

Dear Mr. Suthard:

This Letter Report No. 5 presents the analytical results for the sediment samples and areas listed below.

- June 12, 2010 - Hewes Point Area 6 (Including Borrow Area 6a)
- June 13, 2010 - Re-Handling Area RH-2
- June 14, 2010 - Re-Handling Area 35-E
- June 19, 2010 - Hewes Point Area (Including Borrow Areas CH-A, CH-B and HD-A)
- June 20, 2010 - Hewes Point Area (Including Borrow Areas CH-A, CH-B and HD-A)
- June 21, 2010 - Hewes Point Area (Including Borrow Areas CH-A, CH-B and HD-A)
- June 21, 2010 - Re-Handling Area RH-1
- June 21, 2010 - Re-Handling Area RH-3
- June 22, 2010 - Re-Handling Area 25-5
- **June 23, 2010 - Pass-a-Loutre Potential Borrow Area**
- June 24, 2010 - Saint Bernard Shoals Borrow Area
- June 25, 2010 - Saint Bernard Shoals Borrow Area

General information for the sampling locations including sample location maps are presented in Attachment A. Analytical results are provided in Tables B-1 through B-12 in Attachment B.

Based on a comparison of the results reported to date with Louisiana Department of Environmental Quality (LDEQ) human health criteria for hydrocarbons in soil, the detected concentrations appear to be well below the screening levels considered protective of human health by LDEQ. The LDEQ soil criteria (Appendix M, UST Soil Screening Standards, Underground Storage Tank Closure/Change-in-Service Guidance Document, LDEQ, May 1,

Mr. Suthard
July 7, 2010
Page 2

2010) are provided in Attachment C. This comparison of the results to LDEQ human health screening criteria for soil should not be considered a comprehensive evaluation of the results.

The analytical results in the attached table were produced using US Environmental Protection Agency (USEPA) versions of the cited analytical methods. The analytical methods specified by LDEQ are modified versions of the USEPA methods and may group and report the TPH fractions (GRO/DRO/ORO) somewhat differently.

Please contact me at [REDACTED] if you have any questions.

Sincerely,

Terra Environmental
Services, Inc.



Bryan P. Rood
Senior Scientist

attachment

ATTACHMENT A

**General Information Regarding Sediment Samples Collected
from June 12 through 25, 2010**

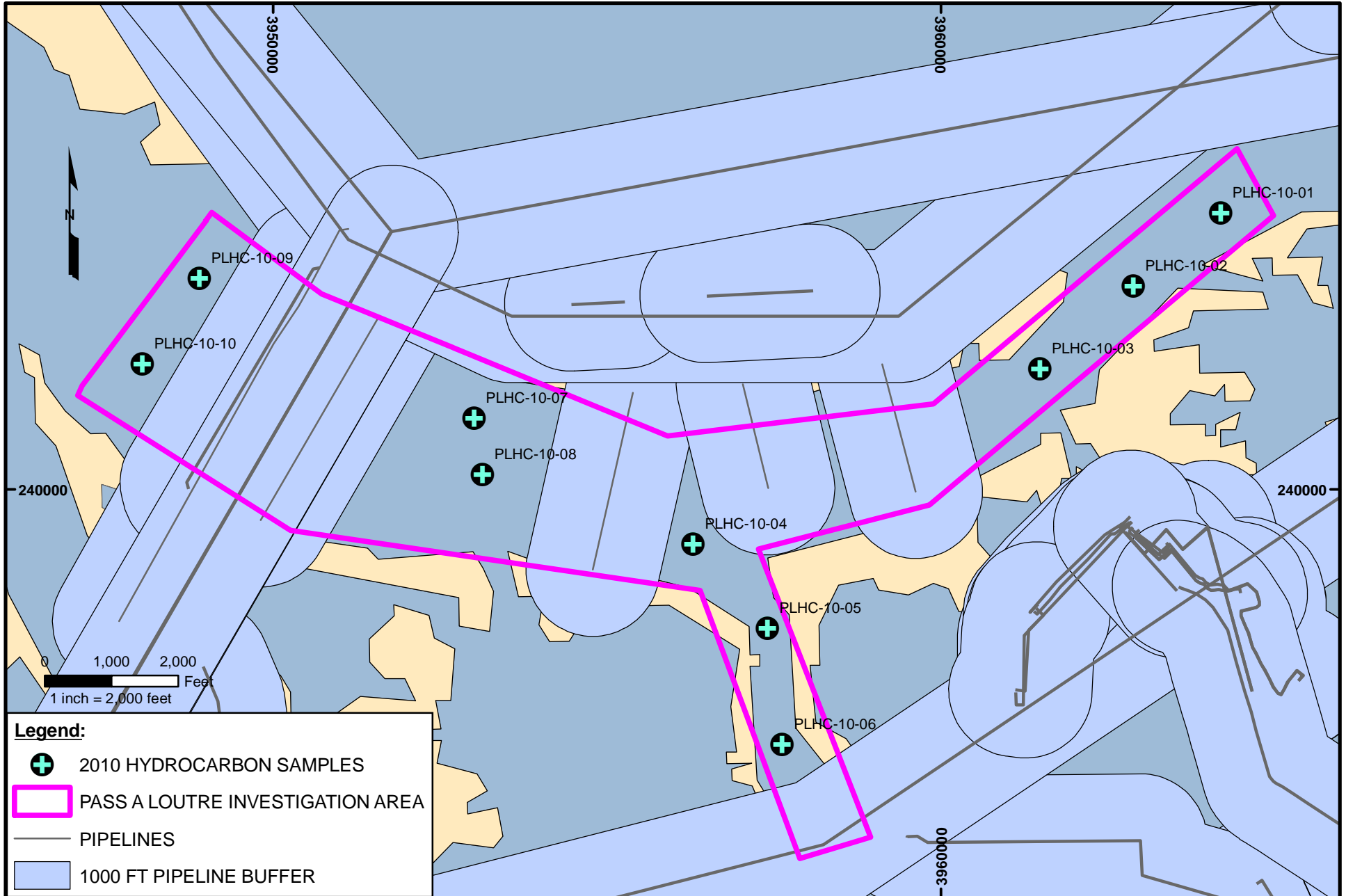
Table A-1. General Information for Sediment Samples Collected from June 12 through June 25, 2010
 Report No. 5 - July 7, 2010

Sample Designation	Sampling Date	Sampling Time	Northing	Easting	Depth	Sediment Description
HPHC-10-52	06/20/10	16:50	4055857.87	575591.68	14	Fine-grained sand with trace silt, large shell fragments, medium greenish gray
HPHC-10-53	06/20/10	16:35	4057987.13	575490.20	17	Fine-grained sand with trace silt, shell fragments, worms, medium gray
Hewes Point Area (Including Borrow Areas CH-A, CH-B and HD-A)						
HPHC-10-48	06/21/10	11:00	4053360.28	573379.35	20	Very fine-grained silty sand with trace shell hash, some worms, dark greenish gray
HPHC-10-103 ⁷	06/21/10	11:00	4053360.28	573379.35	20	Very fine-grained silty sand with trace shell hash, some worms, dark greenish gray
HPHC-10-49	06/21/10	11:25	4055020.25	571281.15	22	Very fine-grained silty sand with shell fragments, very dark greenish gray
HPHC-10-50	06/21/10	10:50	4053857.85	575473.84	16	Fine-grained sand with silt, trace shell hash, greenish gray
HPHC-10-51	06/21/10	11:10	4055304.90	573520.68	16	Fine-grained sand with some silt and shell fragments, worms, dark gray
Re-Handling Area RH1						
RH1HC-10-13	06/21/10	14:25	4087823.58	519259.44	35	Fine-grained sand with trace organics silt, trace shell fragments, medium gray
RH1HC-10-14	06/21/10	13:20	4089932.11	520349.69	40	Silt with trace sand, worms, anaerobic odor
RH1HC-10-104 ⁸	06/21/10	13:20	4089932.11	520349.69	40	Silt with trace sand, worms, anaerobic odor
RH1HC-10-15	06/21/10	14:10	4089357.93	518856.18	38	Very fine-grained sand with silt, worms and trace shell fragments, organic ooze, very dark gray
RH1HC-10-16	06/21/10	14:45	4088829.48	517396.94	37	Very fine-grained sandy silt with trace shell fragments, anaerobic odor, medium gray
RH1HC-10-17	06/21/10	13:45	4090914.23	518511.10	39	Very fine-grained sand with silt and organic ooze, dark gray
Re-Handling Area RH3						
RH3HC-10-18	06/21/10	16:40	4068693.97	448013.08	32	Fine-grained sand with trace to some silt, trace shell fragments and worms
RH3HC-10-105 ⁹	06/21/10	16:40	4068694.97	448014.08	32	Fine-grained sand with trace to some silt, trace shell fragments and worms
RH3HC-10-19	06/21/10	17:30	4069686.56	446129.71	36	Very fine-grained silty sand with trace shell fragments and worms, medium gray
RH3HC-10-20	06/21/10	17:15	4071824.08	447255.13	35	Fine-grained silty sand with some worms, trace shell hash, medium gray
RH3HC-10-21	06/21/10	16:25	4070798.96	449123.38	35	Fine-grained sand with some silt, trace shell fragments and worms
RH3HC-10-22	06/21/10	17:05	4070215.66	447595.02	33	Fine-grained sand with some silt, trace shell hash, some worms, medium gray
Re-Handling Area 25-5						
PIHC-10-11	06/22/10	15:10	3838431.34	259420.93	28	Very fine-grained silty sand with soft clay, shell hash, worms, dark gray
PIHC-10-12	06/22/10	14:35	3839258.86	257907.29	28	Very fine-grained sandy, silty clay with shell fragments, anaerobic odor, medium to dark gray
PIHC-10-13	06/22/10	14:05	3841368.75	258889.02	28	Slightly silty, sandy clay with black organic sediments, shell fragments, anaerobic odor, medium gray
PIHC-10-14	06/22/10	12:20	3840486.80	260531.81	28	Sandy silt with organic ooze, anaerobic odor, very dark gray to black
PIHC-10-15	06/22/10	13:30	3840457.02	259480.09	28	Silty sand clay, shell fragments, gray, black ooze on surface
PIHC-10-16	06/22/10	12:35	3839500.23	259969.28	28	Silty sandy clay, plastic, organic ooze on surface, anaerobic odor, dark gray to black
PIHC-10-106 ¹⁰	06/22/10	12:35	3839500.23	259969.28	28	Silty sandy clay, plastic, organic ooze on surface, anaerobic odor, dark gray to black
PIHC-10-17	06/22/10	14:20	3840331.90	258424.33	28	Very fine-grained silty, clayey sand with shell fragments, very dark gray
PIHC-10-18	06/22/10	14:45	3839357.84	258984.35	28	Very fine-grained silty sand, shell hash, gray with black soft sediments on surface
Pass-A-Loutre						
PLHC-10-01	06/23/10	10:45	3964189.24	244143.45	35	Fine-grained sand, yellowish brown
PLHC-10-02	06/23/10	11:10	3962880.69	243045.16	26	Fine-grained sand, yellowish brown
PLHC-10-107 ¹¹	06/23/10	11:10	3962880.69	243045.16	26	Fine-grained sand, yellowish brown
PLHC-10-03	06/23/10	11:30	3961482.74	241807.84	25	Clayey sand, gray and yellowish brown
PLHC-10-04	06/23/10	12:40	3956291.28	239181.91	8.5	Sand
PLHC-10-05	06/23/10	12:35	3957405.04	237926.81	23	Sand with some organic material, yellowish brown
PLHC-10-06	06/23/10	11:56	3957622.76	236186.22	19	Sand, grayish brown
PLHC-10-07	06/23/10	13:15	3953010.91	241065.58	23	Fine-grained sand, brown
PLHC-10-08	06/23/10	13:25	3953133.77	240226.84	8	Silty sand, grayish brown
PLHC-10-09	06/23/10	14:00	3948897.74	243166.63	7.5	Silty clay with trace sand, trace black organic ooze
PLHC-10-10	06/23/10	13:45	3948044.02	241875.95	14	Fine-grained sand, yellowish brown
St. Bernard Shoals						
SBHC-10-22	06/24/10	18:50	4127607.92	413090.02	63	Fine-grained sand with silt, trace shell fragments, medium gray to brownish gray
SBHC-10-23	06/24/10	18:30	4131905.90	413199.53	63	Fine-grained sand with silt, trace shell fragments, medium gray to brownish gray
SBHC-10-24	06/24/10	18:10	4136307.01	413325.50	55	Fine-grained silty sand with trace shell fragments, medium gray
SBHC-10-25	06/24/10	17:25	4140941.51	413353.82	65	Fine-grained sandy clay with trace shell fragments, medium gray
SBHC-10-26	06/24/10	16:50	4145575.59	413378.20	67	Fine-grained silty sand with some shell hash, brownish gray
SBHC-10-27	06/24/10	16:25	4150082.62	413197.66	77	Fine-grained silty sand with trace shell fragments, brownish gray
SBHC-10-28	06/24/10	14:15	4127491.49	408574.53	60	Fine-grained sand, medium brownish gray
SBHC-10-108 ¹²	06/24/10	14:15	4127491.49	408574.53	60	Fine-grained sand, medium brownish gray
SBHC-10-29	06/24/10	14:40	4131708.95	408627.94	60	Fine-grained sand with some silt and shell fragments, medium brownish gray
SBHC-10-30	06/24/10	14:55	4136728.14	408869.22	65	Very fine-grained sand with trace shell hash, medium brownish gray
SBHC-10-31	06/24/10	15:15	4141213.68	408771.70	70	Fine to very fine-grained silty sand with worms, medium brownish gray





Table A-1. General Information for Sediment Samples Collected from June 12 through June 25, 2010
 Report No. 5 - July 7, 2010

Sample Designation	Sampling Date	Sampling Time	Northing	Easting	Depth	Sediment Description
SBHC-10-32	06/24/10	15:45	4145642.34	409005.21	75	Very fine-grained silty sand with some shell hash/fragments, medium brownish gray
SBHC-10-33	06/24/10	13:55	4128589.11	403806.38	60	Fine-grained sand, slightly silty, dark gray to brownish gray
SBHC-10-34	06/24/10	15:30	4144584.66	405260.46	75	Fine-grained silty sand with some shell fragments, medium brownish gray
St. Bernard Shoals						
SBHC-10-01	06/25/10	16:05	4126013.95	434866.55	70	Fine-grained silty sand with some clay, medium brownish gray
SBHC-10-02	06/26/10	15:55	4130261.80	434859.54	70	Fine-grained silty, clayey sand with trace shell fragments, medium brownish gray
SBHC-10-03	06/25/10	15:40	4135446.90	435004.68	65	Fine-grained silty sand with trace clay and shell fragments, medium brownish gray
SBHC-10-04	06/25/10	14:05	4125898.42	431009.66	70	Sandy silt, medium brownish gray
SBHC-10-05	06/25/10	14:25	4130441.60	431021.87	75	Silty, sandy clay with some shell fragments, medium gray to brownish gray
SBHC-10-06	06/25/10	15:05	4135488.65	430733.81	65	Fine-grained silty sand with trace shell fragments, medium brownish gray
SBHC-10-07	06/25/10	15:15	4139892.09	430745.25	75	Fine-grained silty sand with trace shell fragments, medium brownish gray
SBHC-10-08	06/25/10	13:45	4126233.85	426922.40	70	Fine-grained silty sand with trace worms, medium brownish gray
SBHC-10-09	06/25/10	13:25	4130567.90	426837.61	60	Fine-grained silty sand with trace shell fragments, medium gray to brownish gray
SBHC-10-111 ¹³	06/25/10	13:25	4130567.90	426837.61	60	Fine-grained silty sand with trace shell fragments, medium gray to brownish gray
SBHC-10-10	06/25/10	13:05	4135526.13	426804.54	70	Fine-grained silty sand with trace shell fragments, medium brownish gray
SBHC-10-11	06/25/10	12:40	4140487.28	426831.71	65	Fine-grained slightly silty sand with trace shell hash, medium gray to brownish gray
SBHC-10-12	06/25/10	10:05	4127657.27	423024.30	60	Fine-grained slightly silty sand with trace shell fragments, medium brownish gray
SBHC-10-13	06/25/10	10:20	4130797.39	423213.41	70	Fine-grained slightly silty sand with trace shell hash, medium brownish gray
SBHC-10-14	06/25/10	10:35	4135866.37	423405.82	65	Slightly silty sand with trace shell hash, medium gray to brownish gray
SBHC-10-110 ¹⁴	06/25/10	10:35	4135866.37	423405.82	65	Slightly silty sand with trace shell hash, medium gray to brownish gray
SBHC-10-15	06/25/10	11:00	4140680.98	423272.60	75	Very fine-grained silty sand with trace shell fragments and worms, medium gray to brownish gray
SBHC-10-16	06/25/10	11:40	4146098.40	423212.80	65	Fine-grained silty sand with trace shell fragments and worms, medium gray to brownish gray
SBHC-10-17	06/25/10	9:45	4129295.35	418068.52	66	Fine-grained slightly silty sand with trace shell hash and worms, brownish gray
SBHC-10-18	06/25/10	9:25	4134435.66	417935.16	65	Fine-grained slightly silty sand with trace shell fragments and worms, brownish gray
SBHC-10-19	06/25/10	9:10	4139718.73	417813.23	65	Fine-grained slightly silty sand with trace shell hash and worms, brownish gray
SBHC-10-20	06/25/10	8:45	4144513.62	417866.18	70	Very fine-grained sand with silt and trace shell fragments, medium gray to brownish gray
SBHC-10-109 ¹⁵	06/25/10	8:45	4144513.62	417866.18	70	Very fine-grained sand with silt and trace shell fragments, medium gray to brownish gray
SBHC-10-21	06/25/10	8:15	4149668.65	417997.34	67	Fine-grained sand with silt and trace shell fragments, medium gray

- \1 Sediment Sample HPHC-10-13 is a duplicate of Sediment Sample HPHC-10-05
- \2 Sediment Sample HPHC-10-14 is a duplicate of Sediment Sample HPHC-10-11
- \3 Sediment Sample PIHC-10-09 is a duplicate of Sediment Sample PIHC-10-06
- \4 Sediment Sample HPHC-10-100 is a duplicate of Sediment Sample HPHC-10-44
- \5 Sediment Sample HPHC-10-101 is a duplicate of Sediment Sample HPHC-10-29
- \6 Sediment Sample HPHC-10-102 is a duplicate of Sediment Sample HPHC-10-47
- \7 Sediment Sample HPHC-10-103 is a duplicate of Sediment Sample HPHC-10-48
- \8 Sediment Sample RH1HC-10-104 is a duplicate of Sediment Sample HPHC-10-14
- \9 Sediment Sample RH3HC-10-105 is a duplicate of Sediment Sample HPHC-10-18
- \10 Sediment Sample PIHC-10-106 is a duplicate of Sediment Sample PIHC-10-16
- \11 Sediment Sample PLHC-10-107 is a duplicate of Sediment Sample PLHC-10-02**
- \12 Sediment Sample SBHC-10-108 is a duplicate of Sediment Sample SBHC-10-28
- \13 Sediment Sample SBHC-10-111 is a duplicate of Sediment Sample SBHC-10-09
- \14 Sediment Sample SBHC-10-110 is a duplicate of Sediment Sample SBHC-10-14
- \15 Sediment Sample SBHC-10-109 is a duplicate of Sediment Sample SBHC-10-20



Legend:

-  2010 HYDROCARBON SAMPLES
-  PASS A LOUTRE INVESTIGATION AREA
-  PIPELINES
-  1000 FT PIPELINE BUFFER

ATTACHMENT B

**Analytical Results for Sediment Samples
Collected from June 12 through 25, 2010**

Attachment B-10. Analytical Results for Samples Collected from Pass-a-Loutre Potential Borrow Area on June 23, 2010

Letter Report No. 5 - July 1, 2010

Parameter	Method	Matrix	Units	PLHC-10-01	PLHC-10-02	PLHC-10-107 ¹	PLHC-10-03	PLHC-10-04	PLHC-10-05	PLHC-10-06	PLHC-10-07	PLHC-10-08	PLHC-10-09	PLHC-10-10
Volatile Organic Aromatics														
Benzene	EPA 8260	Sediment	µg/kg	0.689J	0.373U	0.376U	0.347U	0.930J	0.317U	0.541U	0.567J	1.02J	1.17J	0.339U
Ethylbenzene	EPA 8260	Sediment	µg/kg	0.638U	0.657U	0.662U	0.611U	0.574U	0.559U	0.953U	0.615U	0.927U	0.819U	0.597U
Toluene	EPA 8260	Sediment	µg/kg	1.47J	0.927J	0.945J	0.650J	2.10J	0.506J	1.33J	1.05J	2.92J	1.77J	0.843J
m&p-Xylene	EPA 8260	Sediment	µg/kg	1.03U	1.06U	1.07U	0.990U	1.12J	0.904U	1.54U	0.995U	1.50U	1.33U	0.967U
o-Xylene	EPA 8260	Sediment	µg/kg	0.627U	0.646U	0.651U	0.601U	0.564U	0.549U	0.937U	0.604U	0.912U	0.806U	0.587U
Total Petroleum Hydrocarbons														
Gasoline Range Organics(C6-10)	EPA 8015/8021	Sediment	mg/kg	1.61J	1.46J	1.49J	1.52J	1.22J	1.44J	1.37J	2.44J	1.86J	2.18J	1.61J
Diesel Range Organics (C10-28)	EPA 8015 Modified	Sediment	mg/kg	4.91U	5.06U	5.10U	4.88U	4.72U	4.80U	5.01U	4.98U	6.41U	5.88U	14.4
Oil Range Organics (>C28-40)	EPA 8015 Modified	Sediment	mg/kg	9.14U	9.42U	9.49U	9.09U	8.78U	8.93U	9.32U	9.27U	11.9U	10.9U	8.59U
Polynuclear Aromatic Hydrocarbons														
Acenaphthene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	6.3U	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	6.3U
Acenaphthylene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	6.3U	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	6.3U
Anthracene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	6.3U	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	24.3
Benzo(a)anthracene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	23.7J	6.3U	6.5U	6.8U	6.4U	21.5	14.9J	53.8
C1-Benzo(a)anthracene/Chrysene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6J	6.5U	45.4	6.3U	6.5U	6.8U	6.4U	31.7	24.5	37.5
C2-Benzo(a)anthracene/Chrysene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	38.3	6.3U	6.5U	6.8U	6.4U	20.7	15.6	17.6
C3-Benzo(a)anthracene/Chrysene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	38.7	6.3U	6.5U	6.8U	6.4U	17.9	12.9J	12.1J
C4-Benzo(a)anthracene/Chrysene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	8.6J	6.3U	6.5U	6.8U	6.4U	10.9J	7.7U	6.3J
Benzo(a)pyrene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	25.4	6.3U	6.5U	6.8U	6.4U	22.4	15.1J	47.1
Benzo(b)fluoranthene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	36.1	6.3U	6.5U	6.8U	6.4U	33.5	21.7	58.7
Benzo(e)pyrene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	21.4	6.3U	6.5U	6.8U	6.4U	18.6	12.5J	28.5
Benzo(g,h,i)perylene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	20.5	6.3U	6.5U	6.8U	6.4U	17.9	12.2J	27.1
Benzo(k)fluoranthene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	12.8	6.3U	6.5U	6.8U	6.4U	11.6J	7.7U	19.6
Chrysene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	27.5	6.3U	6.5U	6.8U	6.4U	24.7	16.2	46.6
Dibenz(a,h)anthracene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	6.3U	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	6.3U
Fluoranthene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	36.9	6.3U	6.5U	6.8U	6.4U	35.8	28.3	113
C1-Fluorene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	28.9	6.3U	6.5U	6.8U	6.4U	20.9	17.7	20.9
C2-Fluorene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	29.5	6.3U	6.5U	6.8U	6.4U	15.3J	7.7U	16.1
C3-Fluorene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	21.6	6.3U	6.5U	6.8U	6.4U	13.1J	11.3J	13.0
Fluorene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	6.3U	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	8.7J
C1-Fluoranthene/Pyrene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	43.8	6.3U	6.5U	6.8U	6.4U	23.5	20.0	46.4
Indeno(1,2,3-cd)pyrene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	16.4	6.3U	6.5U	6.8U	6.4U	13.8J	9.5J	24.6
1-Methylnaphthalene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	6.3U	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	6.3U
2-Methylnaphthalene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	6.3U	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	6.3U
C1-Naphthalene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	18.1	6.3U	6.5U	6.8U	6.4U	11.0J	7.7U	8.8J
C2-Naphthalene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	16.2	6.3U	6.5U	6.8U	6.4U	12.9J	18.5	6.3U
C3-Naphthalene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	20.7	6.3U	6.5U	6.8U	6.4U	11.4J	9.7J	7.1J
C4-Naphthalene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	15.6	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	6.3U
Naphthalene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	6.3U	6.3U	6.5U	6.8U	6.4U	8.9U	7.7U	19.1
C1-Phenanthrene/Anthracene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	22.2	6.3U	6.5U	6.8U	6.4U	11.0J	7.7U	25.9
C2-Phenanthrene/Anthracene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	32.2	6.3U	6.5U	6.8U	6.4U	14.0J	11.5J	19.8
C3-Phenanthrene/Anthracene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	30.7	6.3U	6.5U	6.8U	6.4U	11.5J	9.5J	12.0J
C4-Phenanthrene/Anthracene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	10.0J	6.3U	6.5U	6.8U	6.4U	9.3J	7.7U	13.9
Phenanthrene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.6U	6.5U	18.5	6.3U	6.5U	6.8U	6.4U	15.9J	12.8J	74.6
Pyrene	Alkylated PAH by SIM	Sediment	µg/kg	6.5U	6.7J	6.5U	40.4	6.3U	6.5U	6.8U	6.4U	31.2	26.1	91.5
General Chemistry														
Total Organic Carbon	EPA 9060	Sediment	mg/kg	314	1,350	682	15,100	925	1,630	1,290	281	6,260	5,690	1,260
Percent Moisture	% Moisture	Sediment	%	22.9	24.0	23.4	21.5	20.7	22.6	26.2	22.3	43.5	35.1	20.7

¹ Sediment Sample PLHC-10-107 is a duplicate of Sediment Sample PLHC-10-02

TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics

TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics

TPH-ORO = Total Petroleum Hydrocarbons - Oil Range Organics

µg/kg = micrograms per kilogram (parts per billion) on a dry weight basis

mg/kg = milligrams per kilogram (parts per million) on a dry weight basis

J = Concentration is estimated. Estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.

U = The analyte was analyzed for but not detected at the listed method detection limit

ND = The analyte was analyzed for but not detected at the reporting limit or method detection limit

ATTACHMENT C

**Appendix M, UST Soil Screening Standards, Underground Storage Tank
Closure/Change-in-Service Guidance Document, LDEQ, May 1, 2010**

Appendix M UST Soil Screening Standards

Constituents	CAS #	A	B	C	D	E	F
		Limiting Soil Standards (mg/kg)	Non-Industrial Soil Standards (mg/kg)	Industrial Soil Standards (mg/kg)	Soil/Groundwater Standards (mg/kg)	Groundwater Standards (GW1) (mg/L)	SPLP (GW1 x 20) (mg/L)
Petroleum Constituents:							
Benzene	71-43-2	0.051	1.5	3.1	0.051	0.005	0.1
Toluene	108-88-3	20	68	470	20	1.0	20
Ethyl benzene	100-41-4	19	160	230	19	0.7	14
Xylene(mixed)	1330-20-7	18	18	120	150	10	200
MTBE (methyl tert-butyl ether)	1634-04-4	0.077	650	4700	0.077	0.020	0.4
TPH-GRO	NA	65	65	510	65	0.34	6.8
TPH-DRO	NA	65	65	510	65	0.34	6.8
TPH-ORO	NA	180	180	2500	10000	1.1	22
Aliphatics C6-C8	NA	1200	1200	8000	10000	32	640
Aliphatics >C8-C10	NA	120	120	880	5300	1.3	26
Aliphatics >C10-C12	NA	230	230	2000	10000	1.4	28
Aliphatics >C12-C16	NA	370	370	3800	10000	1.4	28
Aliphatics >C16-C35	NA	7100	7100	10000	10000	73	1460
Aromatics >C8-C10	NA	65	65	510	65	0.34	6.8
Aromatics >C10-C12	NA	100	120	1100	100	0.34	6.8
Aromatics >C12-C16	NA	180	180	2100	200	0.34	6.8
Aromatics >C16-C21	NA	150	150	1700	2100	1.1	22
Aromatics >C21-C35	NA	180	180	2500	10000	1.1	22

Total Metals:

Arsenic	7440-38-2	12	12	12	100	0.01	0.2
Barium	7440-39-3	550	550	14000	2000	2	40
Cadmium	7440-43-9	3.9	3.9	100	20	0.005	0.1
Chromium(III)	16065-83-1	100	12000	310000	100	0.1	2
Chromium(VI) ¹	18540-29-97	23	23	610	100	0.1	2
Lead (inorganic)	7439-92-1	100	400	1400	100	0.015	0.3
Mercury (inorganic)	7487-94-7	2.3	2.3	61	4	0.002	0.04
Selenium	7782-49-2	20	39	1000	20	0.05	1.0
Silver	7440-22-4	39	39	1000	100	0.18	3.6

Polynuclear Aromatic Hydrocarbons (PAH):

Acenaphthene	83-32-9	220	370	6100	220	0.37	7.4
Acenaphthylene	208-96-8	88	350	5100	88	0.37	7.4
Anthracene	120-12-7	120	2200	48000	120	1.80	36
Benz(a)anthracene	56-55-3	0.62	0.62	2.90	330.00	0.0078	0.156
Benzo(a)pyrene	50-32-8	0.33	0.33	0.33	23.00	0.0002	0.004
Benzo(b)fluoranthene	205-99-2	0.62	0.62	2.90	220.00	0.0048	0.096
Benzo(k)fluoranthene	207-08-9	6.2	6.2	29	120	0.0025	0.050
Chrysene	218-01-9	62	62	290	76	0.0091	0.182
Dibenz(a,h)anthracene	53-70-3	0.33	0.33	0.33	540.00	0.0025	0.050
Fluoranthene	206-44-0	220	220	2900	1200	1.50	30
Fluorene	86-73-7	230	280	5400	230	0.24	4.8
Indeno(1,2,3-cd)pyrene	193-39-5	0.62	0.62	2.90	9.20	0.0037	0.074
Methylnaphthalene,2-	91-57-6	1.7	22.0	170.0	1.7	0.0062	0.124
Naphthalene	91-20-3	1.5	6.2	43.0	1.5	0.01	0.2
Phenanthrene	85-01-8	660	2100	43000	660	1.80	36
Pyrene	129-00-0	230	230	5600	1100	0.18	3.6

¹ If chromium is not speciated, evaluate total chromium using chromium (VI).

Adapted from LDEQ RECAP (October 20, 2003)



Coastal Protection and
Restoration Authority of Louisiana

State of Louisiana

BOBBY JINDAL
GOVERNOR

August 11, 2010

U.S. Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160

Attention: Mr. Robert Tewis
Project Manager

Subject: Permit Modification to Emergency Permit MVN 2010-1066-ETT
"Pass a Loutré A" Borrow Area

Dear Mr. Tewis,

This document is being submitted by OCPR as a permit modification to NOD-20 emergency permit (MVN 2010-1066-ETT) for the proposed "Pass a Loutré A" borrow area. The purpose of this modification is to extend the borrow area in Pass a Loutré to include "Pass a Loutré A" immediately adjacent to the pre-approved Hopper Dredge Disposal Area (HDDA).

The proposed Pass a Loutré A borrow area is illustrated in the attached drawings. These drawings illustrate the proposed boundaries of the borrow area (plan view) and cross sections showing maximum dredge and equipment depths. As shown, the boundaries of the borrow area allow for avoidance buffers for potential submerged cultural resources and pipelines.

This request has been coordinated with the appropriate regulatory agencies to avoid impacts to potential submerged cultural resources and to assess potential sediment contaminants. Enclosed please find the State Historic Preservation Office clearance letter and cultural resources survey results. Also enclosed please find the letter report detailing the sediment sampling analysis results.

In an effort to not negatively impact the schedule for completion of the sand berm, we are in need of your acceptance or denial of this request as soon as possible. Please let me know if you need any additional information to assist in your review of this modification request.

Sincerely,

Kristi Cantu