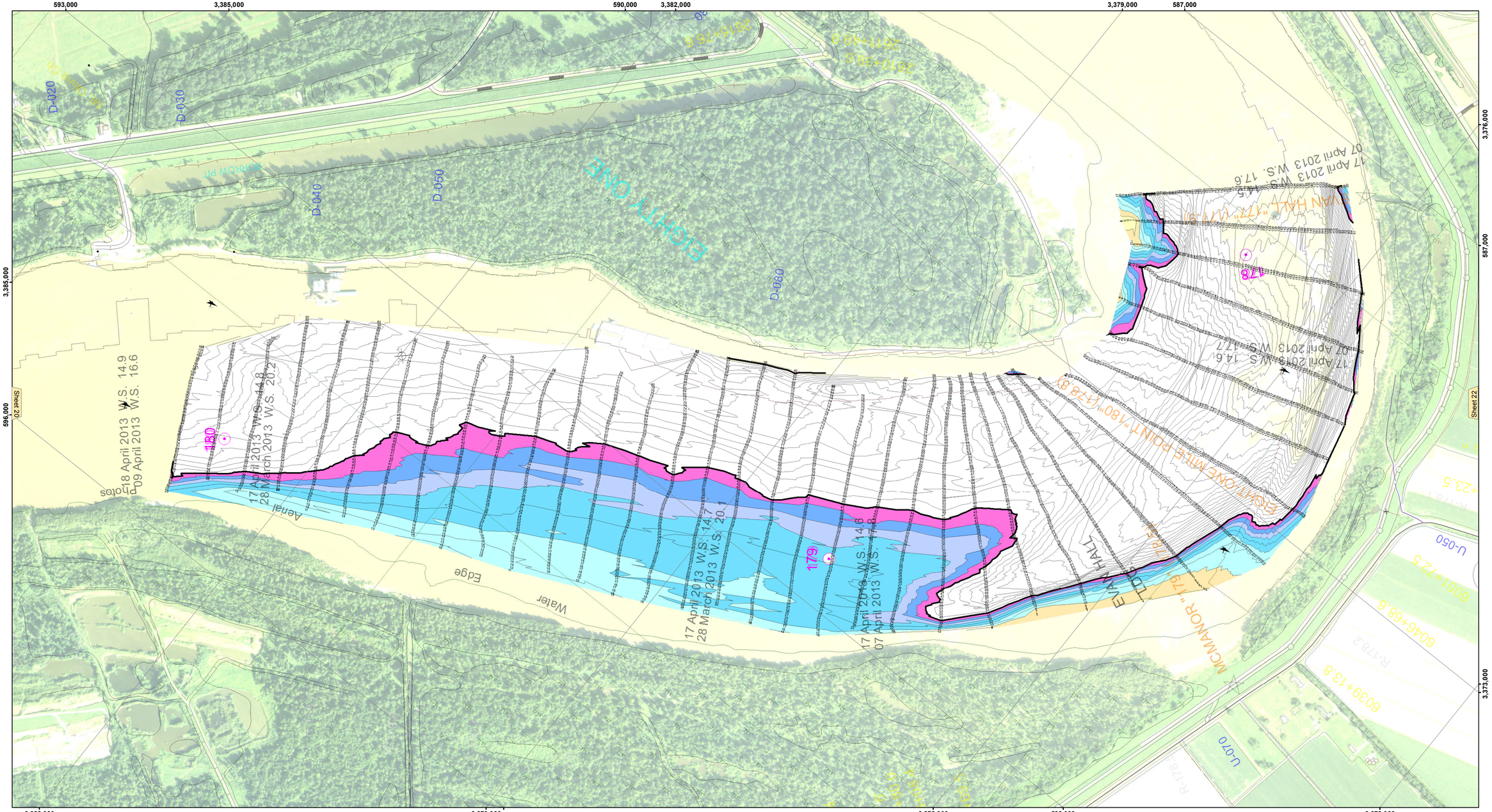

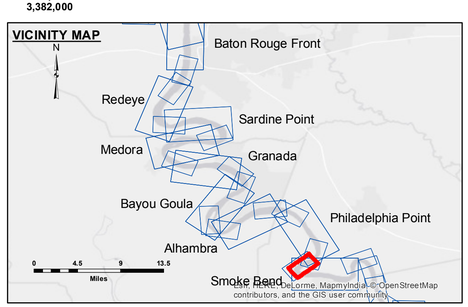

LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- As-built Pipeline/Cable
- Unconfirmed Pipeline/Cable
- Project Depth Contour
- Cable Area
- Placement Area
- Anchorage Area
- Obstruction Point
- Wrecks-Submerged
- Shoaling Area
- Shoalest Sounding**
- Beacon, General
- Red Navigation Buoy
- Green Navigation Buoy
- 0' and above
- 0' to -5'
- -5' to -10'
- -10' to -20'
- -20' to -30'
- -30' to -35'
- -35' to -40'
- -40' to 45'
- -45' and below

LWRP:	1.4
Gage Reading:	BR:8.5 D:4.6 USED:4.8 NGVD
Sea Conditions:	CHOPPY
Vessel Name:	M/V OB 189
Survey Type:	CONDITION
Sounding Frequency***:	HIGH

Feet
0 500 1,000 1,500 2,000 2,500

NOTES:

Horizontal Coordinate System:
North American Datum of 1983 (NAD83), projected to the State Plane Coordinate System (SPCS), Louisiana South Zone. Distance units in U.S. Survey Feet.

Vertical Datum:
Soundings are shown in feet and indicate depths below Low Water Reference Plane 2007 (NGVD).

Distances on the Mississippi River, above and below Head of Passes are shown at 1 mile intervals.

The location of navigation aids are base on and provided by the U.S. Coast Guard and USACE crew.

2010 Aerial Photography data source: NAIP, USDA-FSA-APFO Aerial Photography Field Office.

Reference is N.O.A.A. Navigation Chart No. 11370.

** Shoalest Sounding per Quarter per Reach.

*** High frequency (200 kHz) survey data represents the first signal return at a sounding location and will include suspended solids, known as "fluff", if present. Low frequency (20 kHz) survey data normally penetrates through this "fluff" layer to depict elevations of consolidated bottom material. Low frequency accuracies may vary depending on channel conditions and fathometer settings.

US Army Corps of Engineers
District: CEMVN

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The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered as represent the general condition existing at that time.

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U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

Submitted:	Surveyed By: DR, JA
	Plotted By: AO
Recommended: Chief, Survey Section	Checked By: MK
Approved: Chief, Waterways Maintenance Section	

MISSISSIPPI RIVER - B.R. TO GULF
81 MILE POINT
MD_21_81P_20101117
17 November 2010

Sheet Reference Number
21 **of** 97

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