



LEGEND

--- Federal Navigation Channel	○ Cable Area	■ Shoaling Area	■ 0' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	■ 0' to -5'
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General	■ -5' to -9'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	□ -9' and below
— Project Depth Contour	⚓ Wrecks-Submerged	◆ Green Navigation Buoy	

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 based 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 USACE IENC U35LM236.

** 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.

LWRP: 14.2
Gage Reading: KL:22.85 RR:20.45 USED:20.60 NGVD
Sea Conditions: CALM
Vessel Name: OB-189
Survey Type: CONDITION
Sounding Frequency***: HIGH

Scale: 0 300 600 900 1,200 1,500 Feet



DISTRIBUTION LIABILITY: The data represents the results of data collection/processing for a specific US Army Corps of Engineers project. It is only valid for its intended use, context, time and accuracy specifications. The user is responsible for the results and the application of the data for other than its intended purpose.

Data Constraints: Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging, shoaling, and other channel changes. The user should verify the data in the hydrographical conditions which develop after the date of the survey. The Corps of Engineers does not warrant the accuracy of the data for internal use. Product manners should not rely solely on this data.

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

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**MISSISSIPPI RIVER - SHALLOW DRAFT
SMITHLAND - SHEET 1
MS_09_SM1_20170928_CS
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