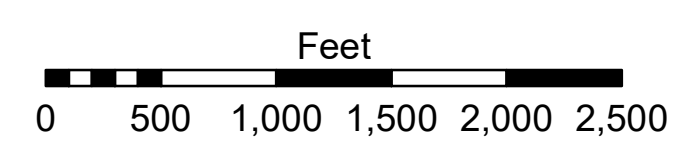
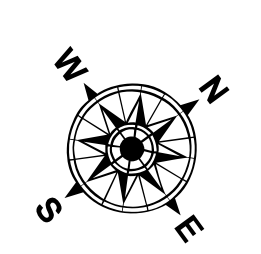


**LEGEND**

--- Federal Navigation Channel	○ Cable Area	□ Borrow 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 -10'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	■ -10' to -20'
— Project Depth Contour	⚓ Wrecks-Submerged	◆ Green Navigation Buoy	■ -20' to -30'
			■ -30' to -35'
			■ -35' to -40'
			■ -40' to 45'
			■ -45' and below



LWRP: 1.8  
 Gage Reading: BR:38.5D:27.1 USED:32.0 NAVD  
 Sea Conditions: CALM  
 Vessel Name: OB-189  
 Survey Type: CONDITION  
 Sounding Frequency\*\*\*: HIGH

**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 (NAVD).

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.  
 2015 Aerial Photography data source: NAIP, USDA-FSA-APFO Aerial Photography Field Office.

Reference is N.O.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.



**DISTRIBUTION LIABILITY:** The data represents the results of data collection for a specific US Army Corps of Engineers project. It is only valid for its intended use, including time and accuracy specifications. The user is responsible for the results of their use. The application of the data for other than its intended purpose is not supported. Data Constants: Hydrographic survey data is subject to change rapidly due to several factors including but not limited to changing hydrographic conditions when developing after the date of the survey. The user is responsible for the results of their use of the data. The information depicted on this map represents the results of a survey conducted on the date indicated. It is not to be considered as a representation of the general condition existing at that time.

U.S. ARMY CORPS OF ENGINEERS  
 NEW ORLEANS DISTRICT

Submitted:	Surveyed By: RYLAND/ADAMS
Recommended: Chief, Survey Section	Plotted By: BD
Approved: Chief, Waterways Maintenance Section	Checked By: AC

**MISSISSIPPI RIVER - B. R. TO GULF  
 BAYOU GOULA CROSSING  
 MD\_13\_GOU\_20190726\_CS**

26 July 2019

**Sheet Reference Number  
 13 of 97**

Revision Number:  
 4-13-2019/07/26