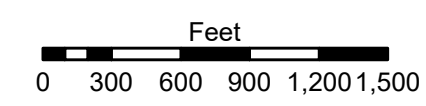
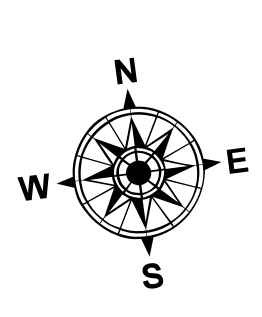


LEGEND			
--- Federal Navigation Channel	● Cable Area	■ Shoaling Area	■ 0' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	■ 0' to -5'
— As-built Pipeline/Cable	□ Anchorage Area	☆ Beacon, General	■ -5' to -9'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red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



LWRP: 12.6  
 Gage Reading: RR:43.0BR:27.0 USED:41.4 NGVD  
 Sea Conditions: CALM  
 Vessel Name: M/V OB189  
 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 (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.  
 2015 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.



**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, control, time and accuracy specifications. The user is responsible for the results. For more information, the application of the data for other than its intended purpose.  
**Data Collection:** Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging operations, changes in channel conditions, and changes in the hydrographical conditions when developed after the date of the survey. The information depicted on this map represents the results of a survey conducted at the time the data was collected. The Corps of Engineers does not warrant the accuracy of the data or the information depicted on this map. Product maintainers should not rely solely upon this information.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT			
Submitted:	Surveyed By: RYLAND/HOSHMAN	Plotted By: AO	Checked By: AO
Recommended:	Chief Survey Section		
Approved:	Chief Waterways Maintenance Section		

**MISSISSIPPI RIVER - SHALLOW DRAFT  
 SMITHLAND - SHEET 3  
 MS\_11\_SM3\_20181002\_CS  
 02 October 2018**

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 Reference  
 Number  
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