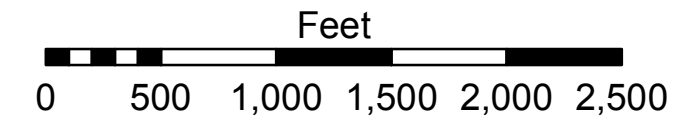
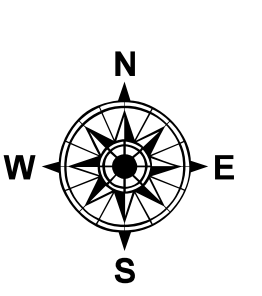


**LEGEND**

|                                  |                     |                         |                  |
|----------------------------------|---------------------|-------------------------|------------------|
| --- 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 |



LWR.P: 1.4  
 Gage Reading: BR:31.3 D:21.75 USED:21.70(NGVD)  
 Sea Conditions: ROUGH  
 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 (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. 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.



**DISCLAIMER:**  
 The information depicted on this map represents the results of a survey conducted under the general condition existing at that time. The user is responsible for the accuracy, completeness, and reliability of the data for other than its intended purpose. The user is responsible for the results of the application of the data for other than its intended purpose. Data Constants: Hydrographic survey data is subject to change rapidly due to several factors including but not limited to changing hydrographical conditions when developed after the date of the survey. The user is responsible for the results of the application of the data for other than its intended purpose. The user is responsible for the results of the application of the data for other than its intended purpose. The user is responsible for the results of the application of the data for other than its intended purpose.

|  |                   |
|--|-------------------|
| U.S. ARMY CORPS OF ENGINEERS<br>NEW ORLEANS DISTRICT |                   |
| Submitted By:<br>RYLAND/ADAMS                        | Plotted By:<br>BD |
| Recommended By:<br>Chief, Survey Section             | Checked By:<br>AO |
| Approved:<br>Chief, Waterways Maintenance Section    |                   |

**MISSISSIPPI RIVER - B.R. TO GULF  
 SMOKE BEND CROSSING  
 MD\_22\_SMB\_20170623\_CS  
 23 June 2017**

**Sheet Reference Number  
 22 of 97**

Revision Number:  
3.12-2016/811