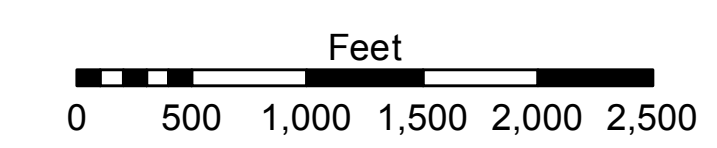
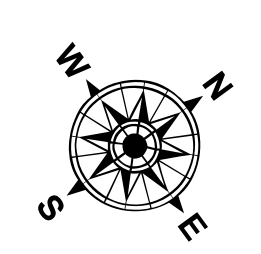


LEGEND	
— Federal Navigation Channel	○ Cable Area
— Federal Navigation Center Line	□ Placement Area
— As-built Pipeline/Cable	□ Anchorage Area
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point
— Project Depth Contour	✈ Wrecks-Submerged
□ Borrow Area	★ Beacon, General
● Shoalest Sounding**	♦ Red Navigation Buoy
★ Beacon, General	♦ 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: 1.8
 Gage Reading: BR:23.5 D:15.45 USED:18.90 NGVD
 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 (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.



ACCESSORIES: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than that for which they were originally prepared. The user is responsible for the results of any application of the data for other than its intended purpose.
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 of any 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, sedimentation, and other changes in the river channel. The Army Corps of Engineers does not assume any liability for 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 under the general conditions existing at that time. Considered internal use. Product maintainers should not rely solely upon it.

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

**MISSISSIPPI RIVER - B.R. TO GULF
 BAYOU GOULA CROSSING
 MD_13_GOU_20170324_CS
 24 March 2017**

**Sheet
 Reference
 Number
 13 of 97**

Revision Number:
 3.13-20160811