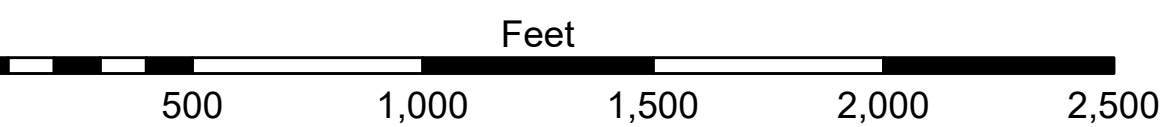
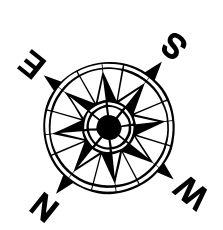


LEGEND

--- 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 -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: 1.4
 Gage Reading: BR:30.25 D:20.6 USED:21.30 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 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 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.

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 By: AC

MISSISSIPPI RIVER - B. R. TO GULF
81 MILE POINT
MD_21_81P_20180518_CS
18 May 2018

Sheet Reference Number
21 of 97

Revision Number:
 3.12-20160811

ACCESS NOTES
 The information depicted on this map represents the results of a hydrographic survey conducted by the U.S. Army Corps of Engineers. The data was collected and processed for a specific US Army Corps of Engineers project and is only valid for its intended use, content, time and accuracy specifications. 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 dredging, sedimentation, and changes in channel conditions. The U.S. Army Corps of Engineers accepts no responsibility for changes in the hydrographic conditions when developed after the date of the survey. The user is responsible for the accuracy of the data when used for purposes other than those intended for the survey.
 Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers project and is only valid for its intended use, content, time and accuracy specifications. 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 dredging, sedimentation, and changes in channel conditions. The U.S. Army Corps of Engineers accepts no responsibility for changes in the hydrographic conditions when developed after the date of the survey. The user is responsible for the accuracy of the data when used for purposes other than those intended for the survey.

