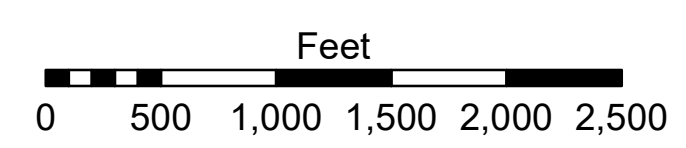
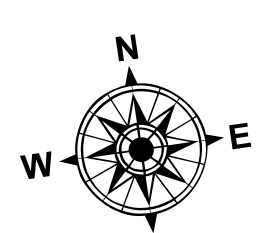


LEGEND	
— Federal Navigation Channel	○ Cable Area
— Federal Navigation Center Line	□ Placement Area
— As-built Pipeline/Cable	□ Anchorage Area
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point
— Project Depth Contour	⚓ Wrecks-Submerged
□ Borrow Area	★ Beacon, General
● Shoalest Sounding**	◆ Red Navigation Buoy
◆ 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: 1.9  
 Gage Reading: BR:43.45 D:31.58 USED:38.1 NGVD  
 Sea Conditions: ROUGH  
 Vessel Name: M/V LAFOURCHE  
 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 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/processing for a specific US Army Corps of Engineers project. It is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results. The user assumes the 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 changing hydrography, sedimentation, and other factors. The user is responsible for the hydrographic conditions which develop after the date of the survey. The information depicted on this map represents the results of a survey conducted under the general condition existing at that time.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	Surveyed By: DJS/SFS
Recommended:	Plotted By: BD
Approved:	Checked By: AC

**MISSISSIPPI RIVER - B.R. TO GULF  
 GRANADA CROSSING  
 MD\_10\_GRAX\_20190328\_BD  
 28 March 2019**

**Sheet  
 Reference  
 Number  
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