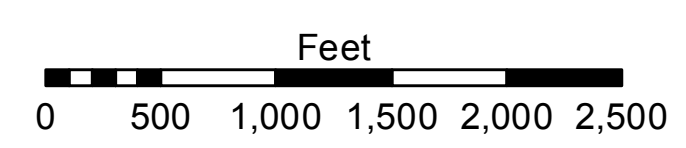
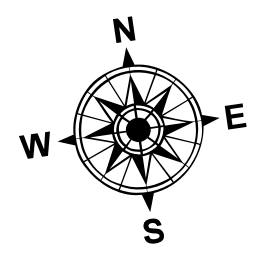


LEGEND

--- 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	★ Beacon, Red	■ -10' to -20'
— Project Depth Contour	⚓ Wrecks-Submerged	★ Beacon, Green	■ -20' to -30'
			■ -30' to -35'
			■ -35' to -40'
			■ -40' to -45'
			■ -45' and below



LWRP: 1.9
 Gage Reading: BR:30.3 D:20.3 USED: 25.80 NAVD
 Sea Conditions: SMOOTH
 Vessel Name: OB189
 Survey Type: CS
 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 (NAVD). 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.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 bathymeter settings.



Access/Obstruction: 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 collected, and that the user is responsible for the results. The user is responsible for the results. The user is responsible for the results. The user is responsible for the results.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers project. The data is not to be used for any purpose other than that for which they were originally collected, and that the user is responsible for the results. The user is responsible for the results. The user is responsible for the results.

Data Accuracy: Hydrographic survey data is subject to change rapidly due to several factors including but not limited to changing hydrographic conditions which develop after the date of the survey. The user is responsible for the results. The user is responsible for the results. The user is responsible for the results.

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

Submitted:	Surveyed By: RYLAND/ADAMS
Recommended: Chief, Survey Section	Plotted By: AO
Approved: Chief, Waterways Maintenance Section	Checked By: AO

**MISSISSIPPI RIVER - B.R. TO GULF
 GRANADA CROSSING
 MD_10_GRA_20210525_CS
 25 May 2021**

**Sheet Reference Number
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