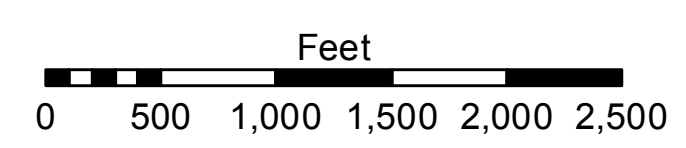
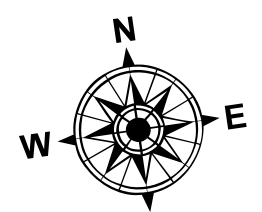


LEGEND

--- 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



LWRP: 1.9
 Gage Reading: BR:31.69 D:22.54 USED:27.5 NGVD
 Sea Conditions: CALM,SUNNY
 Vessel Name: M/V LAFORCHE
 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.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.



DISCLAIMER
 Access Conditions: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are for informational purposes only and are not to be used for any purpose other than that for which they were provided. The user is responsible for the results of any use of the data for any purpose other than that for which they were provided. The user is responsible for the results of any use of the data for any purpose other than that for which they were provided. The user is responsible for the results of any use of the data for any purpose other than that for which they were provided.

Submitted:	Reviewed:	Approved:
DS/DAG	BTD	MSK

U.S. ARMY CORPS OF ENGINEERS
 NEW ORLEANS DISTRICT

**MISSISSIPPI RIVER - B.R. TO GULF
 GRANADA RECON
 MR_10_GRA_20151217
 17 December 2015**

**Sheet
 Reference
 Number
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