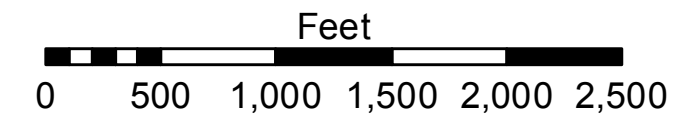
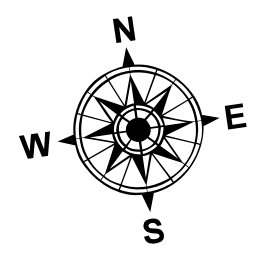


LEGEND

— 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:7.76 D:5.82 USED:6.90 NGVD
 Sea Conditions: CALM/CHOPPY
 Vessel Name: OB-167
 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:
 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 the application of the data for other than its intended purpose.
 The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The information is not to be used for any purpose other than that for which it was originally prepared. The user is responsible for the results of the application of the data for other than its intended purpose.
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U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	Surveyed By: PM SP
Recommended: Chief Survey Section	Plotted By: BTD
Approved:	Checked By: MSK

**MISSISSIPPI RIVER - B.R. TO GULF
 GRANADA RECON
 MR_10_GRA_20151021
 21 October 2015**

**Sheet Reference Number
 10 of 97**