



| 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 | |

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.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.

LWRP: 1.9
Gage Reading: BR:29.8 D:22.0 USED:26.30 NGVD
Sea Conditions: CALM
Vessel Name: OB-189
Survey Type: CONDITION
Sounding Frequency***: HIGH



DISTRIBUTION LIABILITY: The data represents the results of data collection/processing for a specific US Army Corps of Engineers project. It is not intended for use outside of the project's specifications. The user is responsible for the results. The user's application of the data for other than its intended purpose is at their own risk. The US Army Corps of Engineers is not responsible for any damage or injury resulting from the use of this data. The user is advised to consult the project manager for more information.

| U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT | |
|--|--------|
| Submitted: | DR, JH |
| Recommended: | BTD |
| Approved: | MSK |

**MISSISSIPPI RIVER - B.R. TO GULF
GRANADA RECON
MR_10_GRA_20160421
21 April 2016**

**Sheet Reference Number
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