



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	

**LWRP:** 1.9  
**Gage Reading:** BR:39.3 D:26.4 USED:32.10 NGVD  
**Sea Conditions:** CALM  
**Vessel Name:** OB-189  
**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. 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.



**DISCLAIMER:**

The information depicted on this map represents the results of a survey conducted by the U.S. Army Corps of Engineers. The user is responsible for the accuracy, reliability, usability or suitability for any particular purpose of the information. The user is responsible for the accuracy, reliability, usability or suitability for any particular purpose of the information. The user is responsible for the accuracy, reliability, usability or suitability for any particular purpose of the information.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	RYLAND/SONNIER
Recommended:	Chief, Survey Section
Approved:	Chief, Waterways Maintenance Section
Surveyed By:	RYLAND/SONNIER
Plotted By:	BD
Checked By:	AC

**MISSISSIPPI RIVER - B.R. TO GULF  
GRANADA RECON  
MR\_10\_GRA\_20170615  
15 June 2017**

**Sheet Reference Number  
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