



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:29.10 D:19.8 USED:24.90 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.



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 for any other purpose than the project for which it was collected. The user is responsible for the results of any application of the data for other than its intended purpose. Data Collection: Hydrographic survey data is subject to change due to several factors including but not limited to dredging, sedimentation, and other factors. The user is responsible for the results of any application of the data for other than its intended purpose. The information depicted on this map represents the results of a survey conducted on the date indicated. It is not intended to represent the general condition existing at this time.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	Surveyed By: DR, SP
Recommended: Chief, Survey Section	Plotted By: BTD
Approved: Chief, Waterways Maintenance Section	Checked By: MSK

**MISSISSIPPI RIVER - B. R. TO GULF
GRANADA RECON
MR_10_GRA_20160603
03 June 2016**

**Sheet
Reference
Number
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