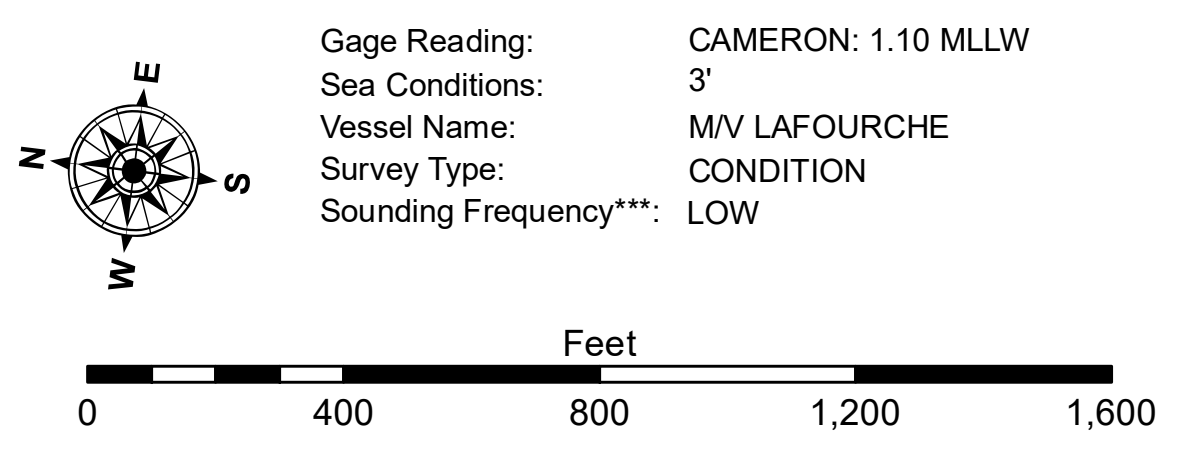


LEGEND			
--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*	-16' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	-16' to -21'
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General	-21' to -26'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	-26' to -33'
— Project Depth Contour	✈ Wrecks-Submerged	◆ Green Navigation Buoy	-33' to -39'
			-39' to -41'
			-41' to -43'
			-43' and below



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: CAMERON: 1.10 MLLW
 Datum Relationships for gage 73650 as of December 2013:
 0.0' NAVD88 (2009.55) = 1.3' MLLW = 2.3' MLG or 0.0' MLLW = 1.0' MLG

Distances on the Calcasieu River are shown at 1 mile intervals.
 The location of navigation aids are based on and provided by the U.S. Coast Guard and USACE survey crews.

2015 Aerial Photography data source: NAIP
 Reference is N.O.A.A. Navigation Chart No. 11339.

* Difference between high and low frequency elevations where greater than 1.0'.
 ** 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
 Accession: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, reliability, usability or suitability for any particular purpose of the information furnished hereunder. The user is responsible for the results obtained from the use of this information. The user is responsible for the application of the data for other than its intended purpose.
 Distribution Liability: The data represent the results of data collection performed for a specific US Army Corps of Engineers project. The user is responsible for the results obtained from the use of this information. The user is responsible for the application of the data for other than its intended purpose.
 Data Continuity: Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging, sedimentation, and channel migration. The user is responsible for the 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 that time.

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

**CALCASIEU SHIP CHANNEL
 BAR SHEET 31
 CR_31_BAR_20180718_BD
 18 July 2018**

**Sheet Reference Number
 31 of 53**