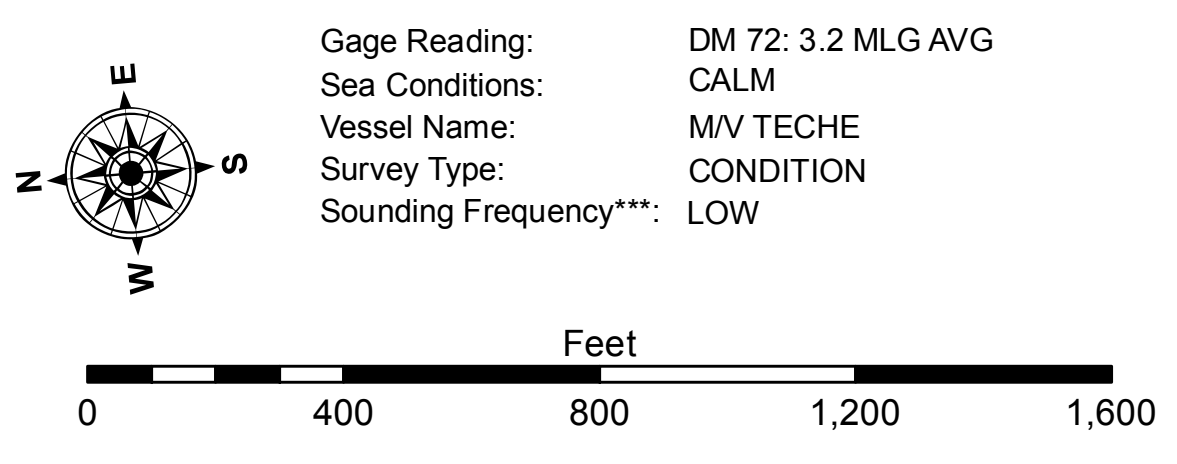


LEGEND

--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*	■ -15' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	■ -15' to -20'
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General	■ -20' to -25'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	■ -25' to -32'
— Project Depth Contour	⚓ Wrecks-Submerged	◆ Green Navigation Buoy	■ -32' to -38'
			■ -38' to -40'
			■ -40' to -42'
			■ -42' 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:
Soundings are shown in feet and indicate depths below Mean Low Gulf Datum (MLG).
Datum Relationships for gauge 73615 as of December 2013:
0.0' NAVD83 (2009.55) = 1.1' MLLW = 2.1' 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 base 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

The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the Government makes no warranty, expressed or implied, regarding the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the information. The user is responsible for the results of any use of this information. Application of the data for other than its intended purpose is at the user's risk. The user shall indemnify and hold the United States Government harmless from any and all claims, damages, and expenses, including reasonable attorneys' fees, that may be asserted against or incurred by the United States Government or its employees, agents, or contractors, in connection with or arising from the use of this information. The information depicted on this map represents the results of a survey conducted on or about 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: SR, JH
Recommender: Chief, Survey Section	Plotted By: AO
Approver: Chief, Waterways Maintenance Section	Checked By: AO

**CALCASIEU SHIP CHANNEL
LOWER SHEET 19
CR_19_LWR_20161005
05 October 2016**

**Sheet Reference Number
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