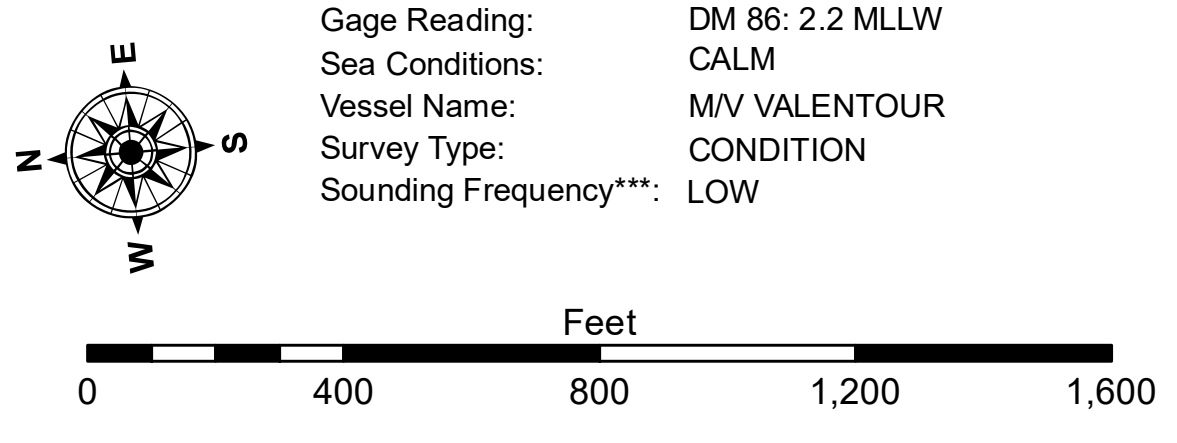


LEGEND		
--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy
— Project Depth Contour	⚓ Wrecks-Submerged	◆ Green Navigation Buoy
		■ -16' and above
		■ -16' to -21'
		■ -21' to -26'
		■ -26' to -33'
		■ -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: Soundings are shown in feet and indicate depths below Mean Lower Low Water Datum (MLLW). Datum Relationships for gage 73595 as of December 2013: 0.0' NAVD88 (OPUS 2013) = 0.9' MLLW = 1.9' 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 information depicted on this map represents the results of a survey conducted under contract to the U.S. Army Corps of Engineers. The user of this information is advised that the data is not intended for use in any other project or for any other purpose. The user is responsible for the accuracy, completeness, and reliability of the information. The user is advised that the data is not intended for use in any other project or for any other purpose. The user is responsible for the accuracy, completeness, and reliability of the information. The user is advised that the data is not intended for use in any other project or for any other purpose. The user is responsible for the accuracy, completeness, and reliability of the information.

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

**CALCASIEU SHIP CHANNEL
 LOWER SHEET 12
 CR_12_LWR_20190918_CS
 18 September 2019**

**Sheet Reference Number
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