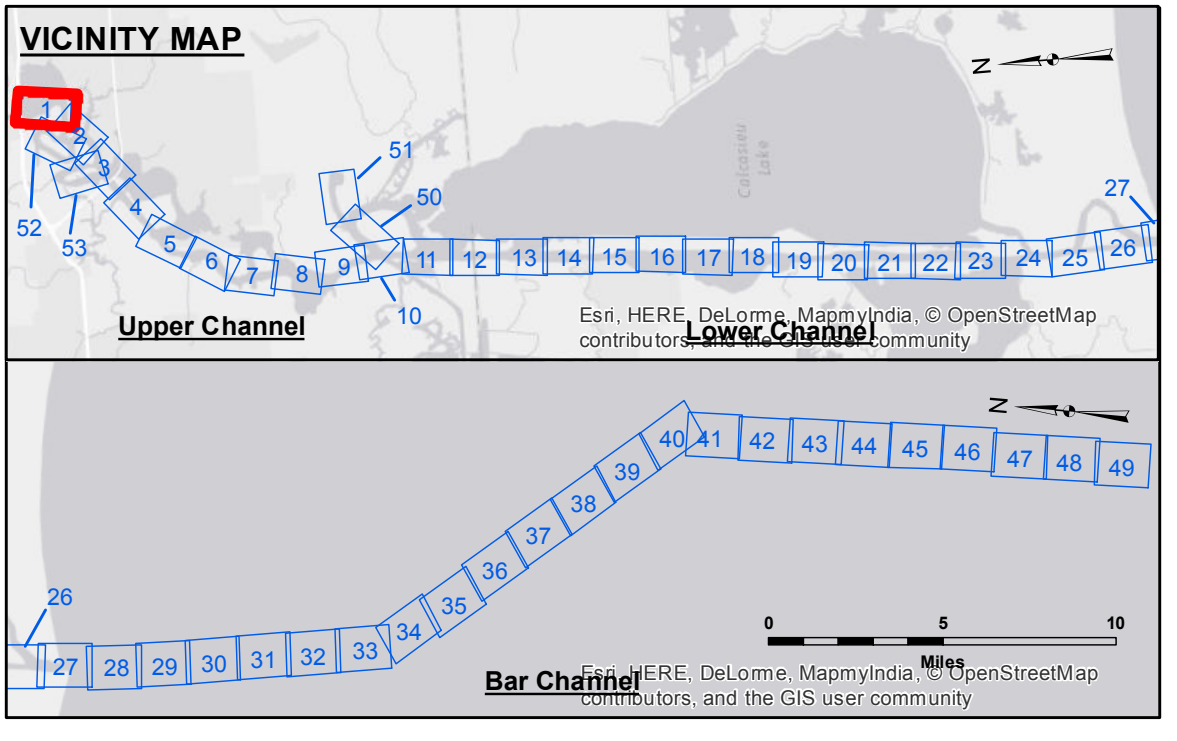


DISCLAIMER
 The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The user is responsible for the accuracy, completeness, and reliability of the information for its intended use. The user is not to be held liable for any damages or losses resulting from the use of this information. The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The user is responsible for the accuracy, completeness, and reliability of the information for its intended use. The user is not to be held liable for any damages or losses resulting from the use of this information.

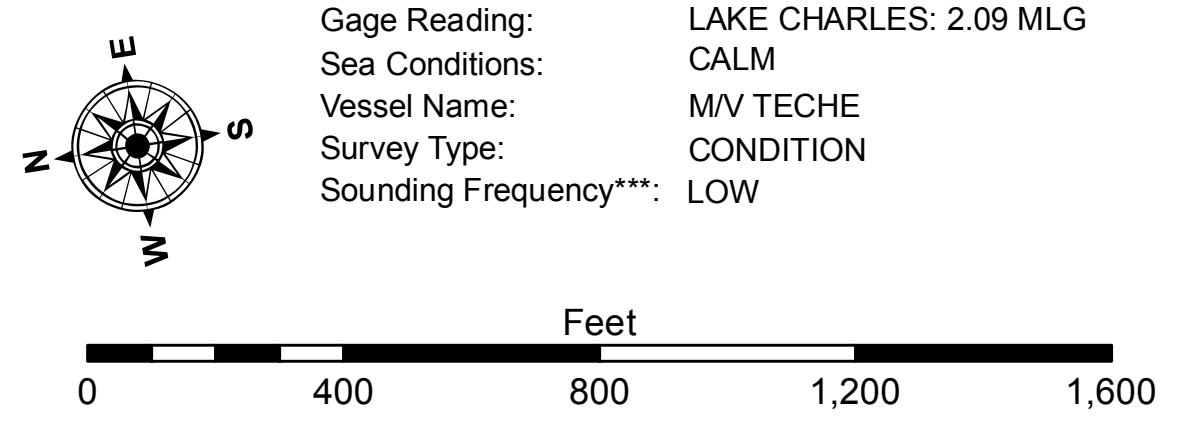
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT		
Submitted:	Surveyed By: SJR/JH	Plotted By: BD
Recommended:	Checked By: AC	Checked By: AC
Approved:	Chief, Survey Section	Chief, Waterways Maintenance Section

**CALCASIEU SHIP CHANNEL
 UPPER SHEET 1
 CR_01_UPR_20170719_CS
 19 July 2017**

**Sheet Reference Number
 1 of 53**



LEGEND		Fluff Thickness (feet)*	
--- Federal Navigation Channel	○ Cable Area	3	-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 -27'
— Project Depth Contour	⊙ Wrecks-Submerged	◆ Green Navigation Buoy	-27' to -33'
			-33' to -35'
			-35' to -37'
			-37' 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 gage 73550 as of December 2013: 0.0' NAVD83 (OPUS 2010) = 0.6' MLLW = 1.6' 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.