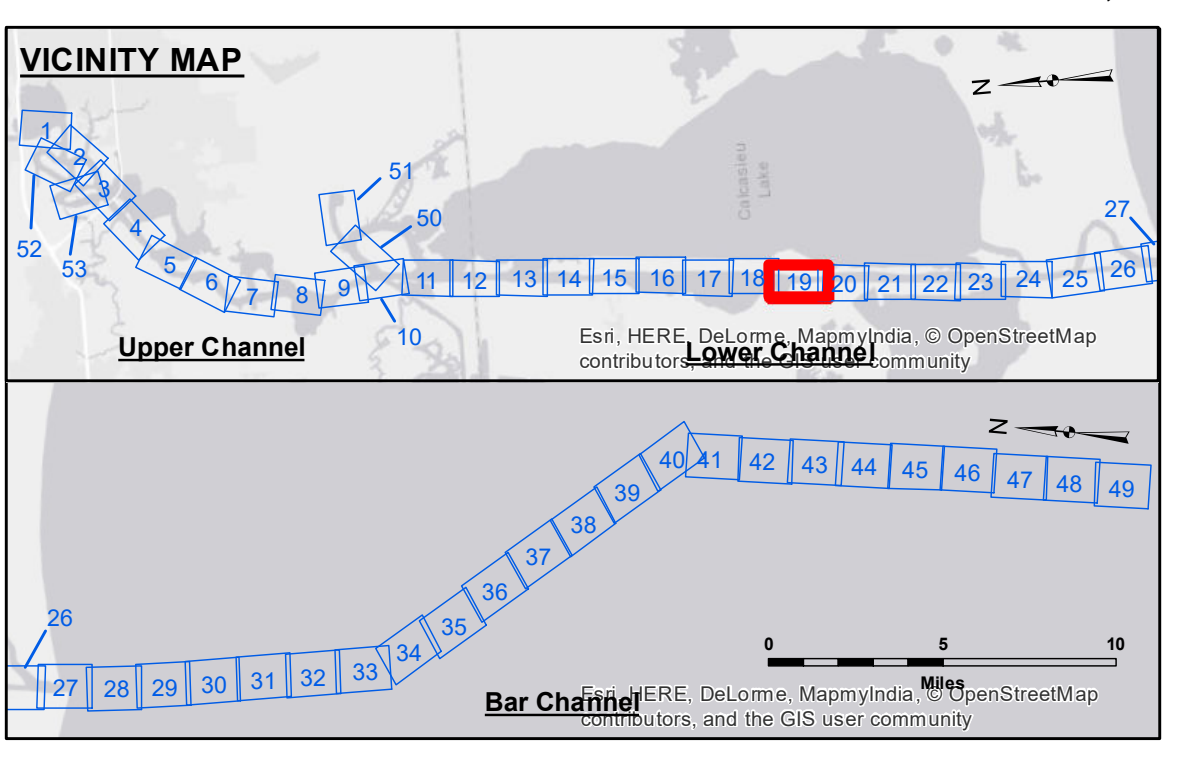


DISCLAIMER
 The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The user is responsible for the accuracy, completeness, and reliability of the data for its intended use. The user is responsible for the accuracy, completeness, and reliability of the data for its intended use. The user is responsible for the accuracy, completeness, and reliability of the data for its intended use. The user is responsible for the accuracy, completeness, and reliability of the data for its intended use.

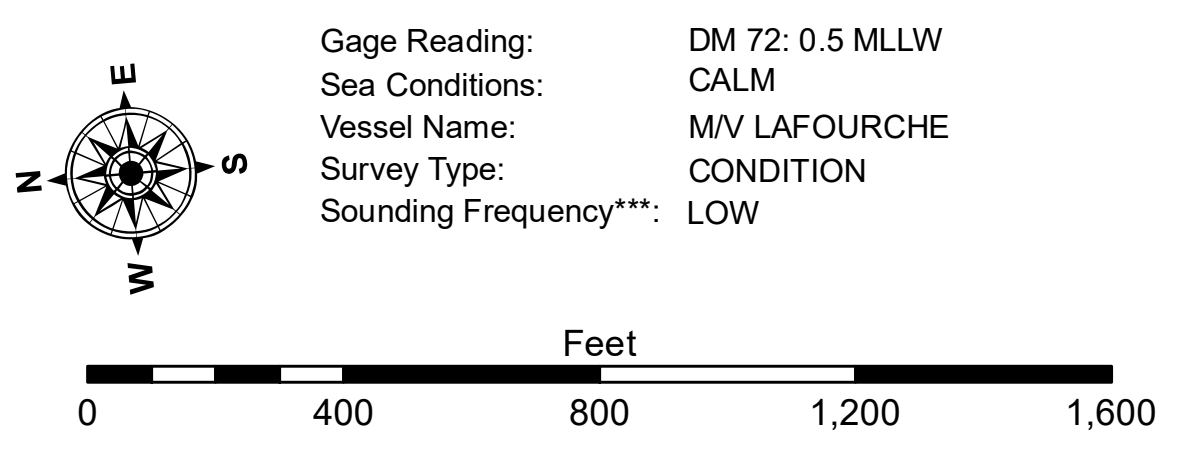
Submitted:	Surveyed By:	JH/JA
Recommended:	Plotted By:	BD
Approved:	Chief, Survey Section	AC
	Chief, Waterways Maintenance Section	

CALCASIEU SHIP CHANNEL
LOWER SHEET 19
CR_19_LWR_20190129_CS
29 January 2019

Sheet Reference Number
19 of 53



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
3 Fluff Thickness (feet)*	★ Beacon, General
● Shoalest Sounding**	◆ Red Navigation Buoy
★ Beacon, General	◆ Green Navigation Buoy



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 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.