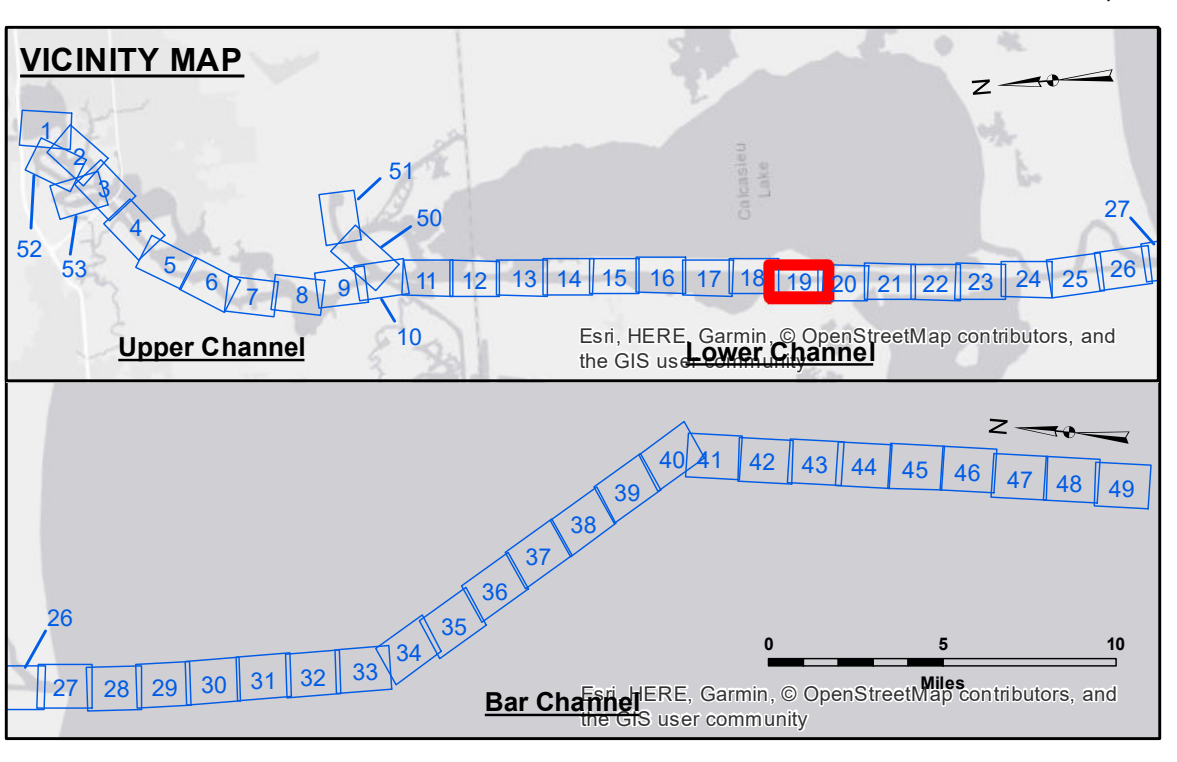


DISCLAIMER
The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The information is provided for informational purposes only and is not intended to be used for any other purpose. The user is responsible for the accuracy, completeness, and reliability of the information. The user is responsible for the accuracy, completeness, and reliability of the information. The user is responsible for the accuracy, completeness, and reliability of the information.

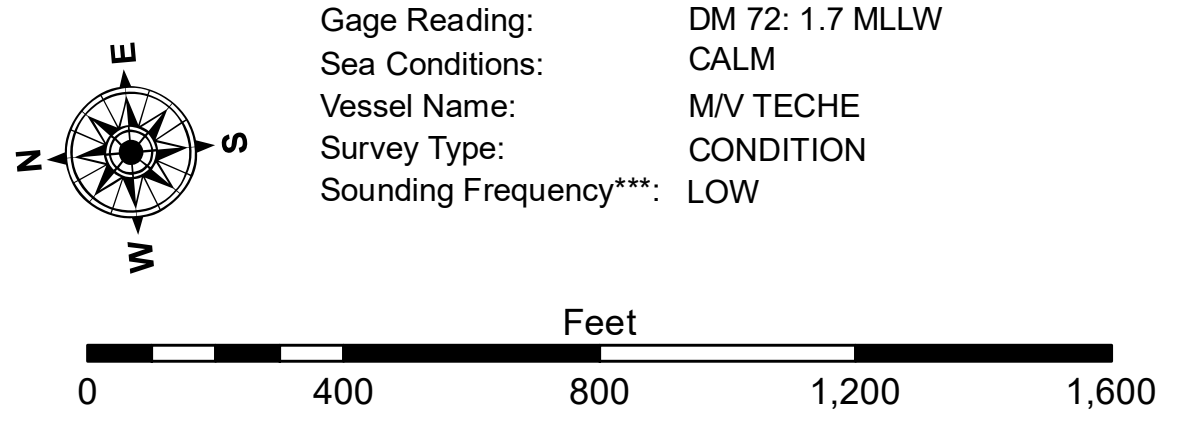
Submitted:	Surveyed By: SPS JH
Recommended:	Plotted By: BD
Approved:	Checked By: AC

**CALCASIEU SHIP CHANNEL
LOWER SHEET 19
CR_19_LWR_20180418_CS
18 April 2018**

**Sheet Reference Number
19 of 53**



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:
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.