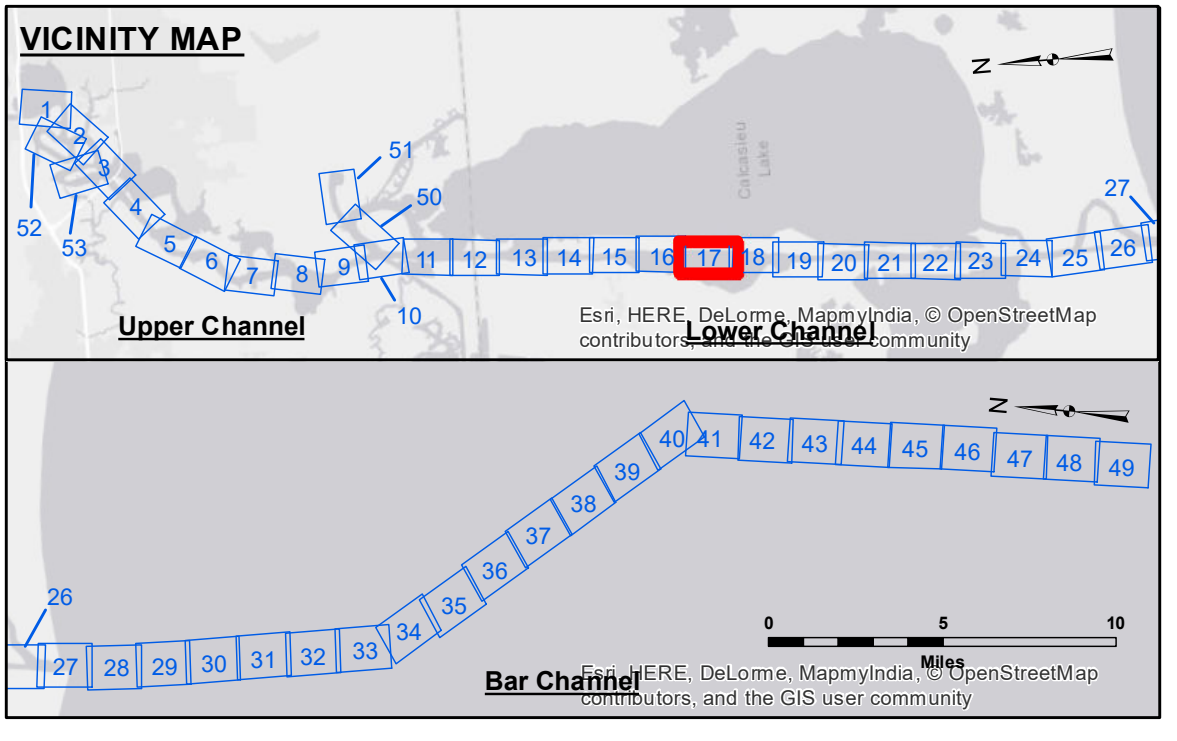


**DISCLAIMER**  
 The information depicted on this map represents the results of a hydrographic survey conducted by the United States Army Corps of Engineers. The data was collected using a dual frequency echosounder and a GNSS receiver. The data is only valid for the intended use, control, time and accuracy specifications. The user is responsible for the results. The Corps of Engineers accepts no responsibility for changes in the hydrographic conditions when developed after the date of the survey. The Corps of Engineers does not warrant the accuracy of the data for other than its intended purpose. The Corps of Engineers does not warrant the accuracy of the data for other than its intended purpose. The Corps of Engineers does not warrant the accuracy of the data for other than its intended purpose. The Corps of Engineers does not warrant the accuracy of the data for other than its intended purpose.

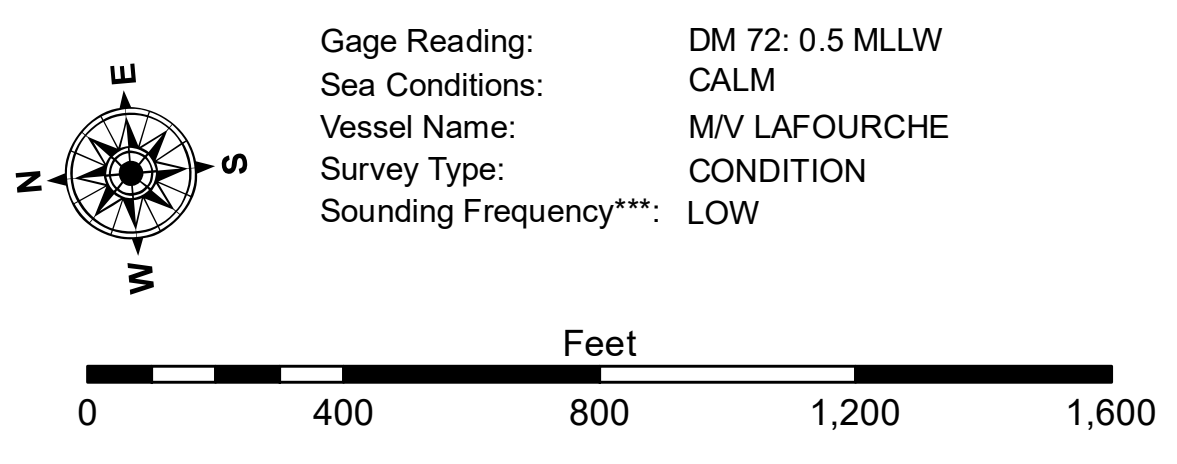
Submitted:	Surveyed By: JH/AJ
Recommended:	Plotted By: BD
Approved:	Checked By: AC

**U.S. ARMY CORPS OF ENGINEERS**  
**NEW ORLEANS DISTRICT**  
**CALCASIEU SHIP CHANNEL**  
**LOWER SHEET 17**  
**CR\_17\_LWR\_20190129\_CS**  
**29 January 2019**

**Sheet Reference Number**  
**17 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. 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.