

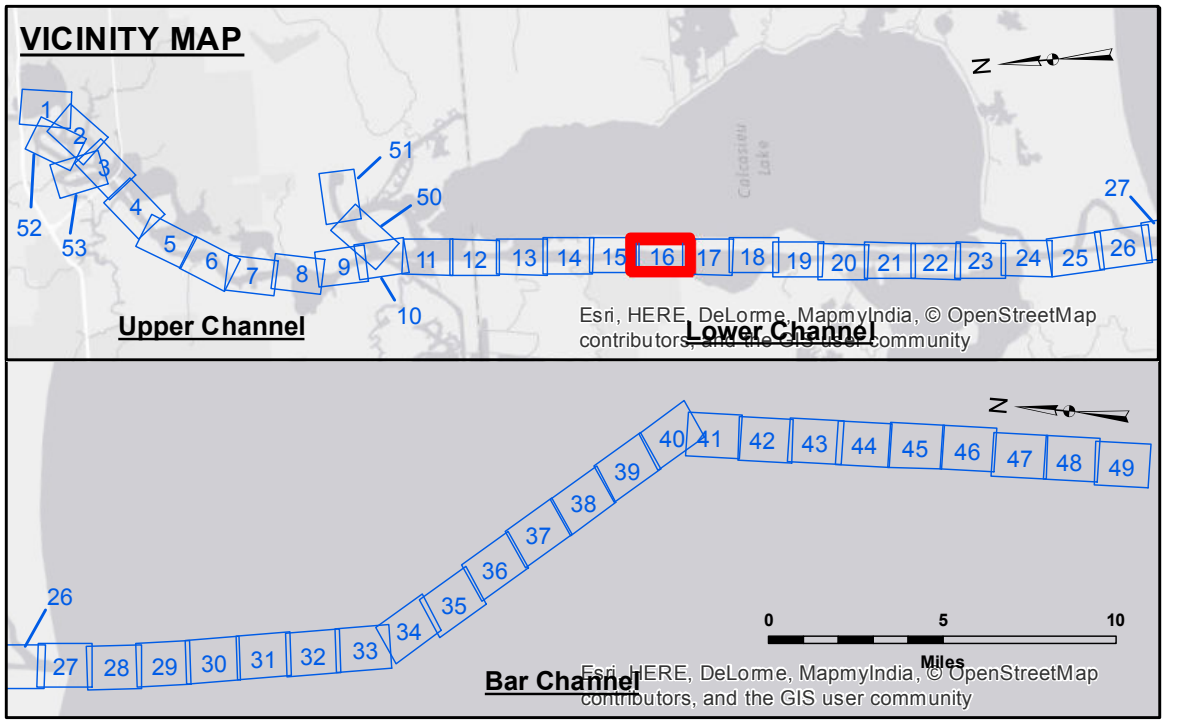
**US Army Corps of Engineers District: CEMVN**

**Accession:** The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than that for which they were originally prepared, and that the user is responsible for the results of any use of the data for other than its intended purpose. Application of the data for other than its intended purpose is at the user's risk. The user is responsible for the results of any use of the data for other than its intended purpose.

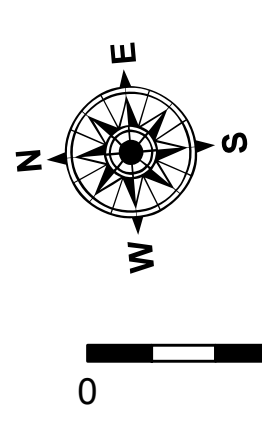
**Disclaimer:** Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging, sedimentation, and other factors. The user is responsible for the results of any use of the data for other than its intended purpose. The user is responsible for the results of any use of the data for other than its intended purpose. The user is responsible for the results of any use of the data for other than its intended purpose.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted: _____	Surveyed By: SR, JH
Recommended: _____	Plotted By: BD
Approved: _____	Checked By: AC

**CALCASIEU SHIP CHANNEL  
LOWER SHEET 16  
CR\_16\_LWR\_20170628\_CS  
28 June 2017**



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
■ -15' and above	
■ -15' to -20'	
■ -20' to -25'	
■ -25' to -32'	
■ -32' to -38'	
■ -38' to -40'	
■ -40' to -42'	
■ -42' and below	



Gage Reading: HACKBERRY: 3.91 MLG  
 Sea Conditions: 1'  
 Vessel Name: MV TECHE  
 Survey Type: CONDITION  
 Sounding Frequency\*\*\*: LOW

**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 73600 as of December 2013: 0.0' NAVD83 (OPUS 2010) = 1.0' MLLW = 2.0' 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.

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