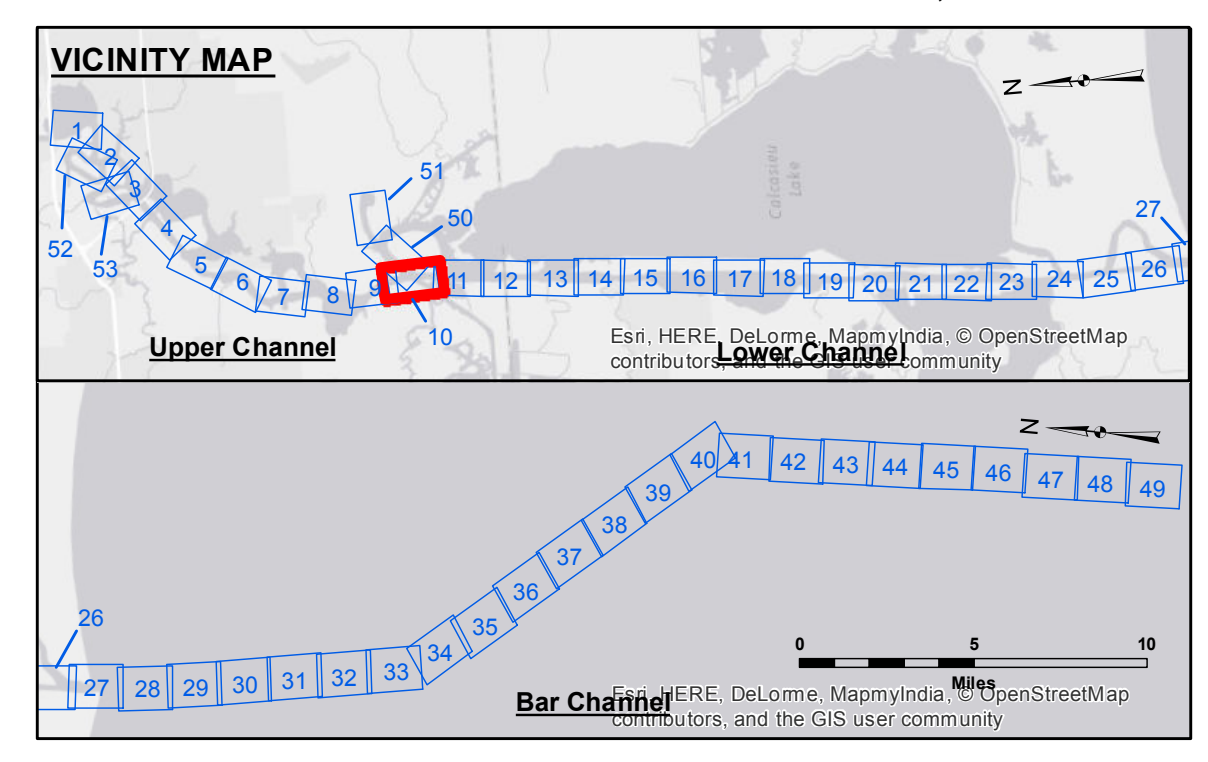


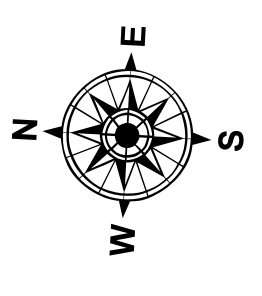
DISCLAIMER
 The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The user is responsible for the accuracy, completeness, and reliability of the information for its intended use. The user is not to be held liable for any damages or losses resulting from the use of this information. The information is provided for informational purposes only and is not to be used for any other purpose. The user is advised to consult the appropriate technical manual for the use of this information. The information is not to be used for any purpose other than that for which it was intended. The user is advised to consult the appropriate technical manual for the use of this information. The information is not to be used for any purpose other than that for which it was intended.

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

**CALCASIEU SHIP CHANNEL
 UPPER SHEET 10
 CR_10_UPR_20170511_CS
 11 May 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
○ -15' and above	◆ Green Navigation Buoy
○ -15' to -20'	
○ -20' to -25'	
○ -25' to -32'	
○ -32' to -38'	
○ -38' to -40'	
○ -40' to -42'	
○ -42' and below	



Gage Reading: RANGE D: 3.09 MLG
 Sea Conditions: CALM
 Vessel Name: MV TECHE
 Survey Type: CONDITION
 Sounding Frequency***: LOW

Feet
 0 400 800 1,200 1,600

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 73585 as of December 2013:
 0.0 NAVD83 (OPUS 2013) = 0.8' MLLW = 1.8' 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.

**Sheet
 Reference
 Number
 10 of 53**