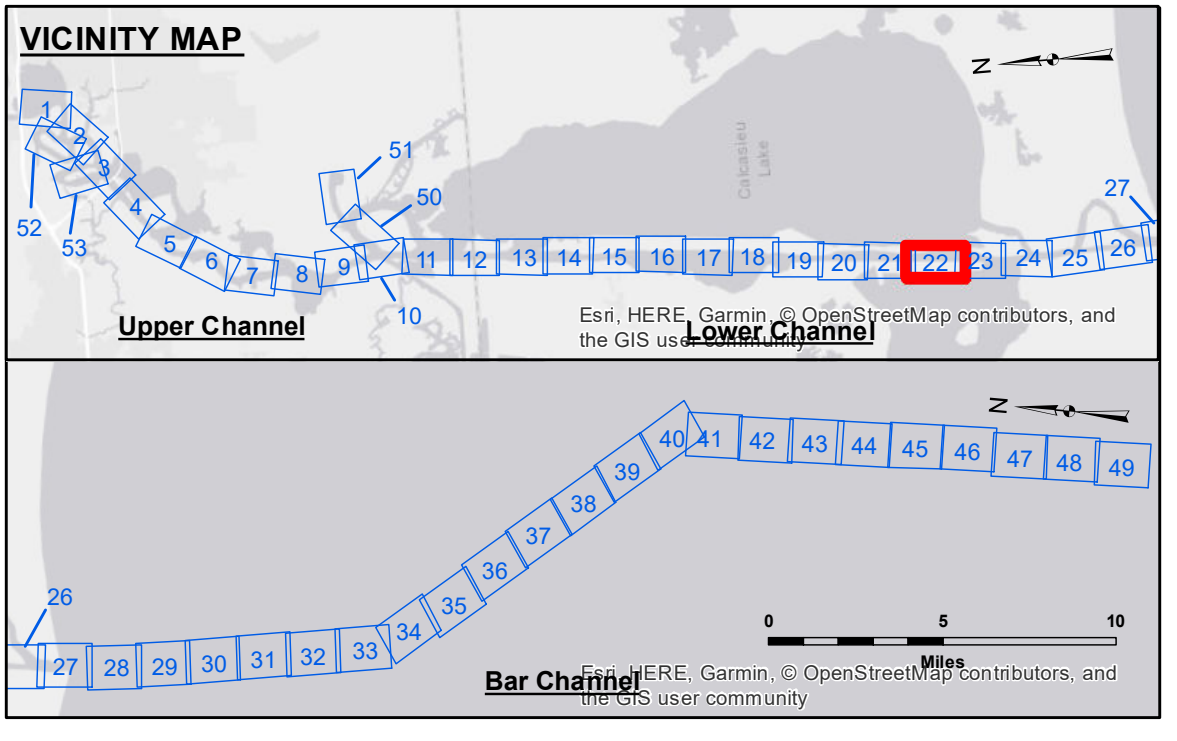


DISCLAIMER
 The information depicted on this map represents the results of a survey conducted by the U.S. Army Corps of Engineers. The user is responsible for the accuracy, completeness, and reliability of the data for its intended use. The user is not to be held liable for any damages or losses resulting from the use of this information. The U.S. Army Corps of Engineers does not warrant the accuracy, completeness, or reliability of the data for any purpose other than that for which it was collected. The user is responsible for the accuracy, completeness, and reliability of the data 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 U.S. Army Corps of Engineers does not warrant the accuracy, completeness, or reliability of the data for any purpose other than that for which it was collected.

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

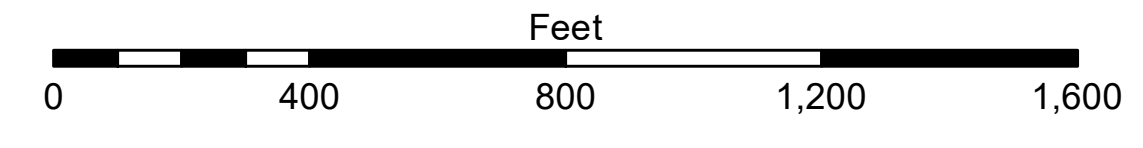
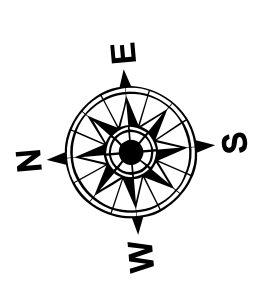
**CALCASIEU SHIP CHANNEL
 LOWER SHEET 22
 CR_22_LWR_20180417_CS
 17 April 2018**

**Sheet Reference Number
 22 of 53**



LEGEND

--- Federal Navigation Channel	○ Cable Area	□ Borrow Area	■ -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



Gage Reading: DM 57: 1.27 MLLW
 Sea Conditions: CALM
 Vessel Name: M/V 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 Lower Low Water Datum (MLLW).
 Datum Relationships for gage 73625 as of December 2013:
 0.0' NAVD83 (2009.55) = 1.2' MLLW = 2.2' 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.