

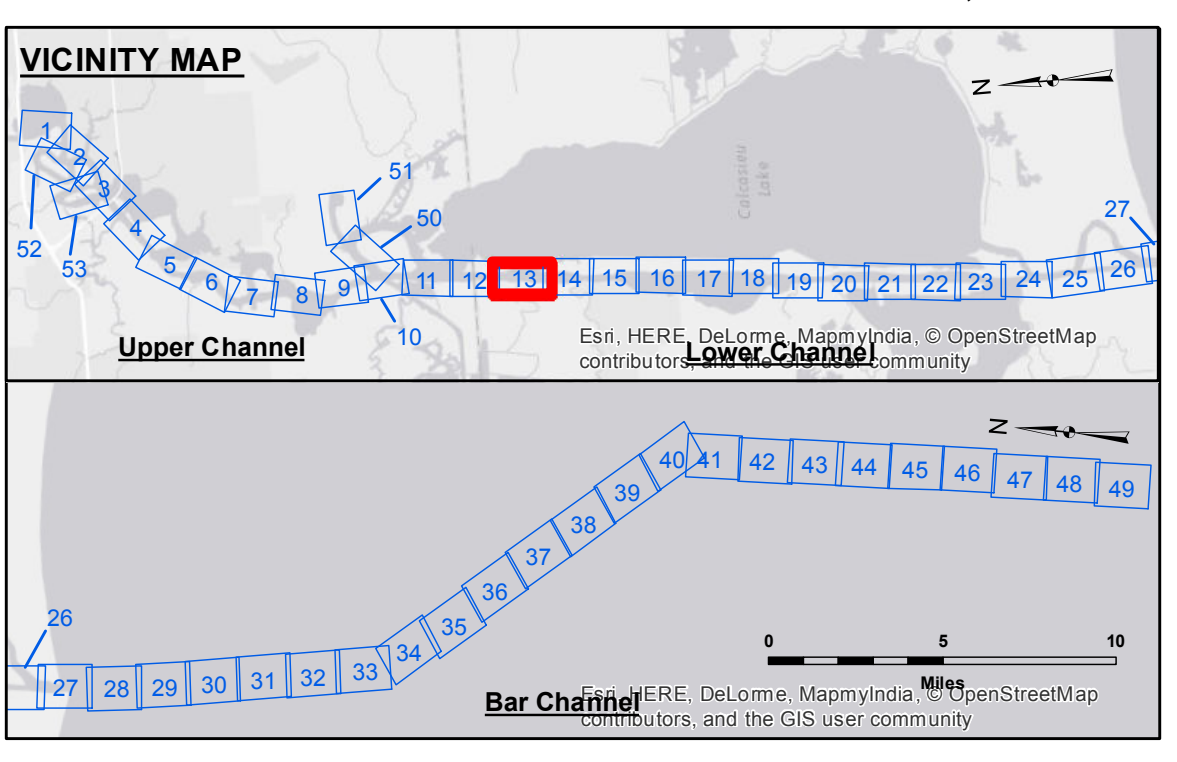
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Submitted:	SR, JH
Recommended:	AO
Approved:	AO

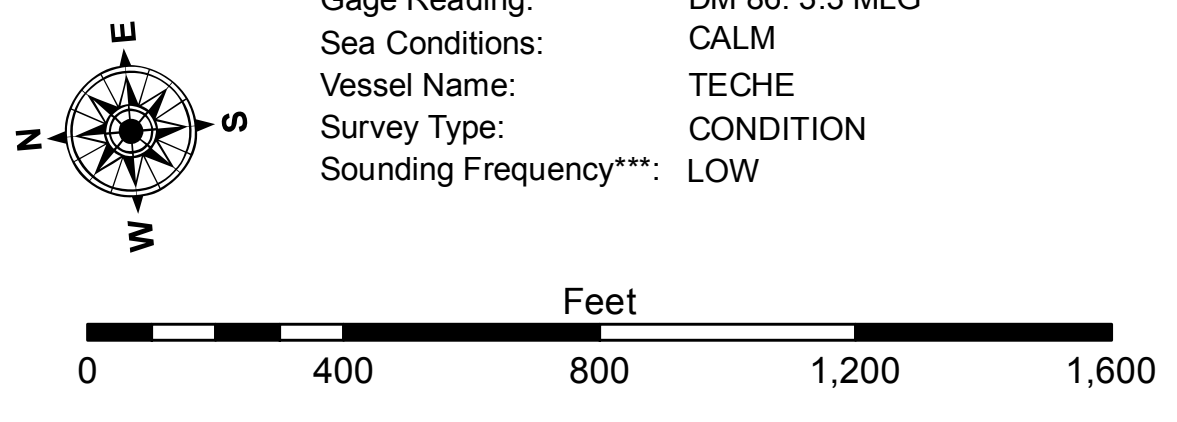
U.S. ARMY CORPS OF ENGINEERS  
 NEW ORLEANS DISTRICT

**CALCASIEU SHIP CHANNEL  
 LOWER SHEET 13  
 CR\_13\_LWR\_20170426\_CS  
 26 April 2017**

**Sheet Reference Number  
 13 of 53**



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
◆ 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



**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 73595 as of December 2013:  
 0.0' NAVD83 (OPUS 2013) = 0.9' MLLW = 1.9' 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.