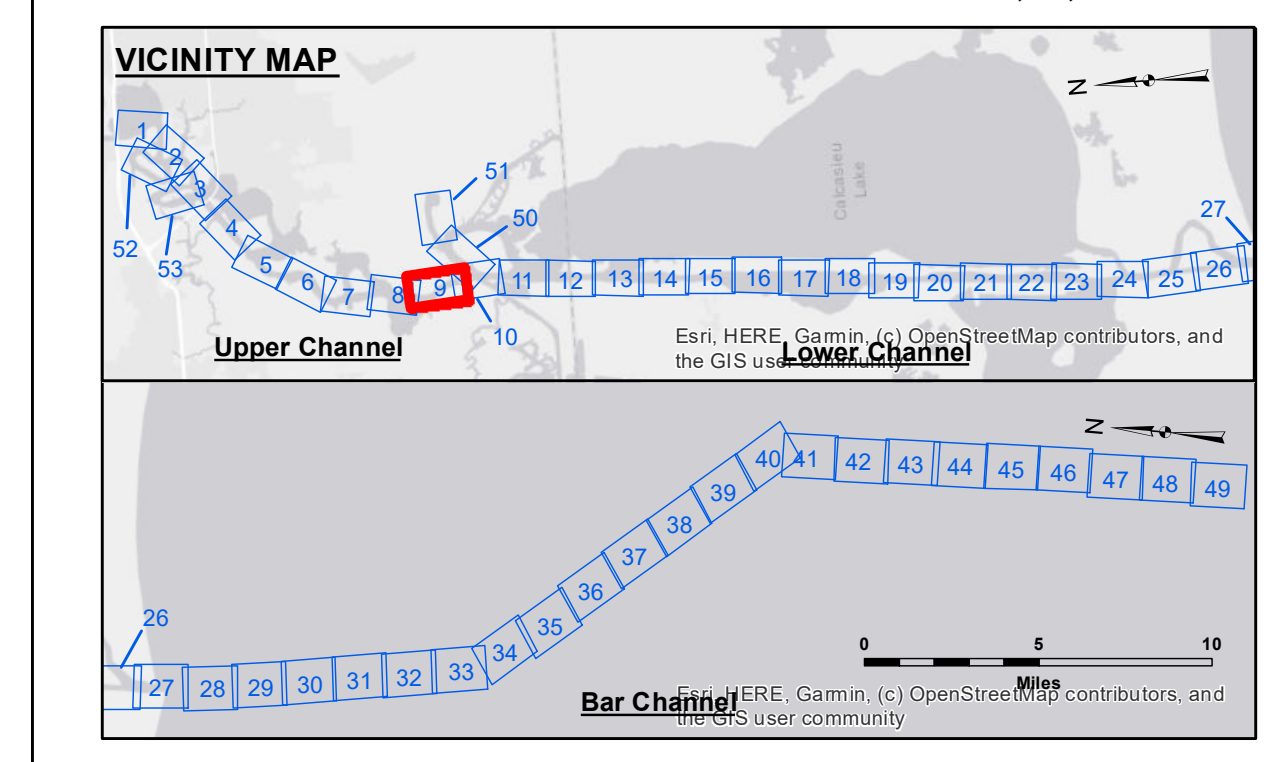


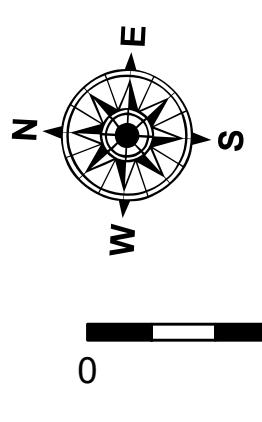
**DISCLAIMER**  
 The United States Government or its employees does not warrant, either expressly or impliedly, the accuracy, completeness, or reliability of the information furnished hereunder. The user is responsible for the results of any use of the information furnished hereunder. The user is responsible for the results of any use of the information furnished hereunder. The user is responsible for the results of any use of the information furnished hereunder. The user is responsible for the results of any use of the information furnished hereunder.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted By: RYLAND/ADAMS	Checked By: AC
Reviewed By: BD	Approved By:
Chief, Survey Section	Chief, Waterways Maintenance Section

**CALCASIEU SHIP CHANNEL  
 UPPER SHEET 9  
 CR\_09\_UPR\_20200902\_CS\_POSTSTORM  
 02 September 2020**



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



Gage Reading: RANGE E: 2.60 MLLW  
 Sea Conditions: CALM  
 Vessel Name: M/V VALENTOUR  
 Survey Type: CONDITION  
 Sounding Frequency\*\*\*: LOW

Vertical Datum:  
 Soundings are shown in feet and indicate depths below Mean Lower Low Water Datum (MLLW).  
 Datum Relationships for gage 73575 as of December 2013:  
 0.0' NAVD88 (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 based 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  
 9 of 53**

Revision Number:  
 4.1-20191105