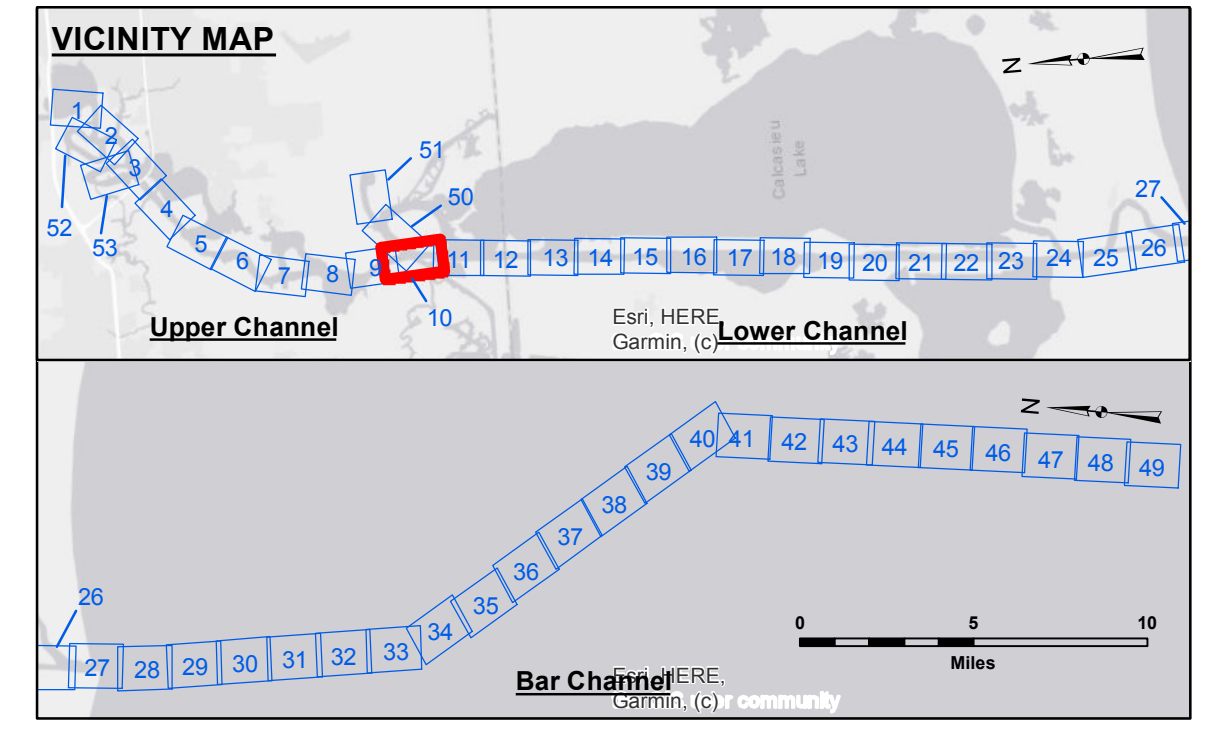
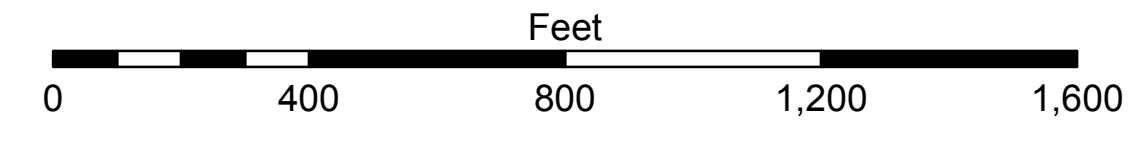
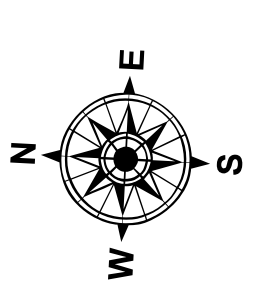


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U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	Surveyed By: PM, SPS
Recommended: Chief, Survey Section	Plotted By: AO
Approved: Chief, Waterways Maintenance Section	Checked By: AO



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: DM92: 1.6 MLLW
 Sea Conditions: CALM
 Vessel Name: OB-167
 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 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 based on and provided by the U.S. Coast Guard and USACE survey crews.
 2022 Aerial Photography data source: PAR LLC
 Reference is N.O.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.

**CALCASIEU SHIP CHANNEL
 UPPER SHEET 10
 CR_10_UPR_20220726_CS
 26 July 2022**

**Sheet Reference Number
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