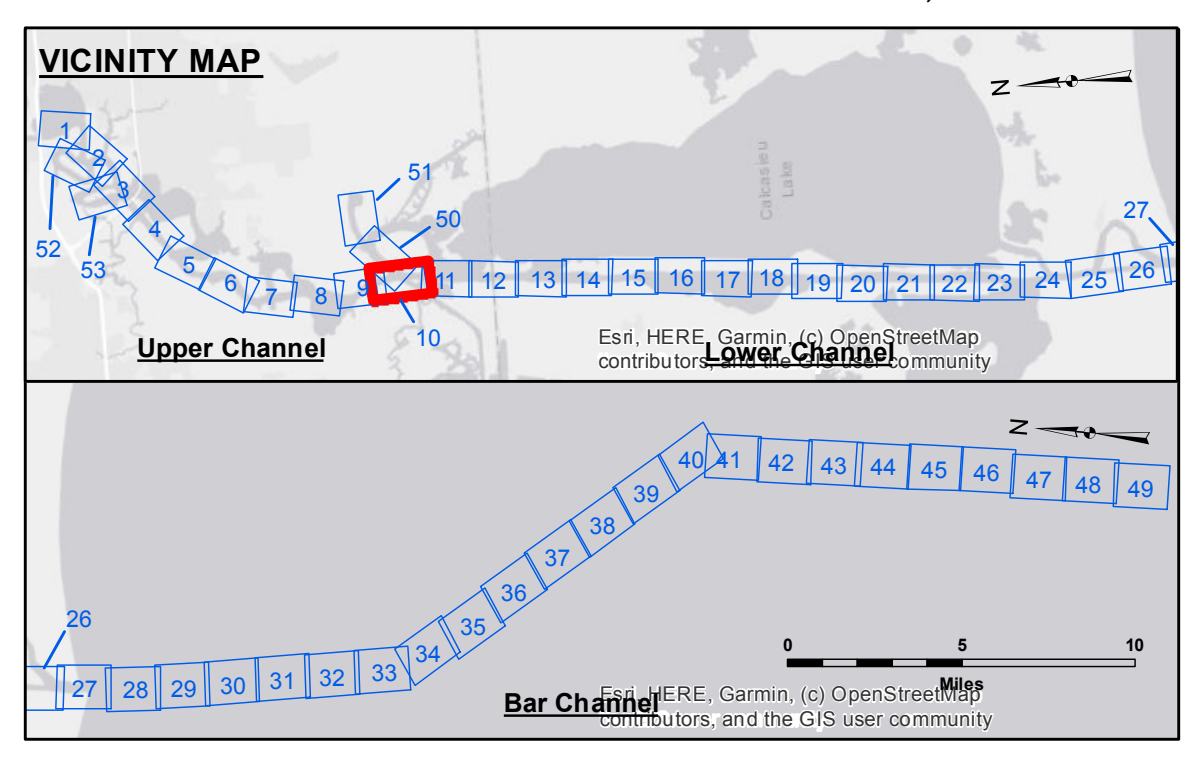


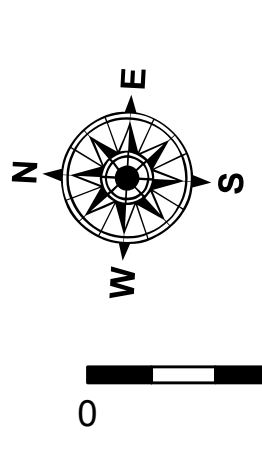
DISCLAIMER: The data represents the results of data collection for a specific US Army Corps of Engineers project. It is only valid for the intended use, control, time and accuracy specifications. The user is responsible for the results. Application of the data for other than its intended purpose. Data: Contouring Hydrographic survey data is subject to change rapidly due to several factors including but not limited to changing bathymetry, sedimentation, and other factors. The user is responsible for the hydrographic conditions when developing after the date of the survey. The information depicted on this map represents the results of a survey conducted at the time of the survey. It is not intended to represent the general condition existing at that time.

U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT	
Submitted:	Surveyed By: SP/SK
Recommended:	Plotted By: BD
Checked:	Checked By: AD/JH
Approved:	Chief, Waterways Maintenance Section

**CALCASIEU SHIP CHANNEL
UPPER SHEET 10
CR_10_UPR_20230209_CS
09 February 2023**



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
○ Green Navigation Buoy	◆ Green Navigation Buoy



Gage Reading: NTRIP VRS RTK: 1.37 MLLW AVG.
 Sea Conditions: CALM
 Vessel Name: MV 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 73585 as of December 2013: 0.0' NAVD83 (OPUS 2013) = 0.8' MLLW = 1.8' MLLG or 0.0' MLLW = 1.0' MLLG
 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.

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