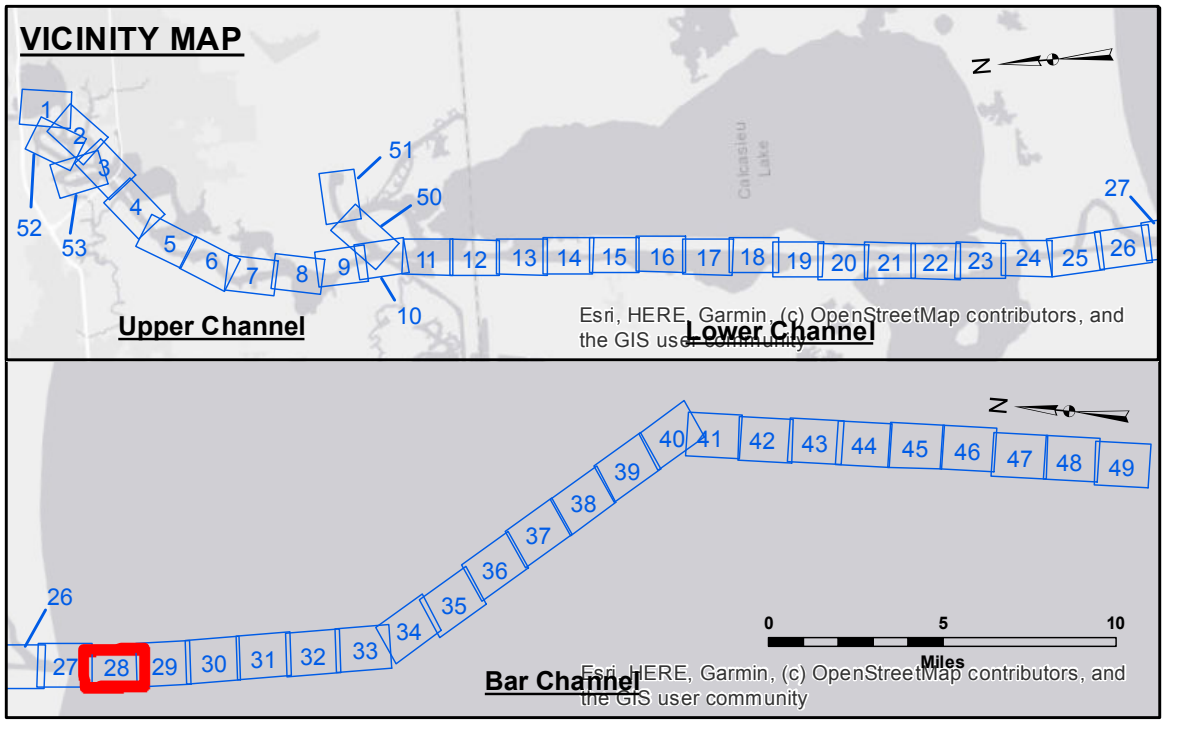


Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers project. It is only valid for its intended use, control, time and accuracy specifications. The user is responsible for the results. Application of the data for other than its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

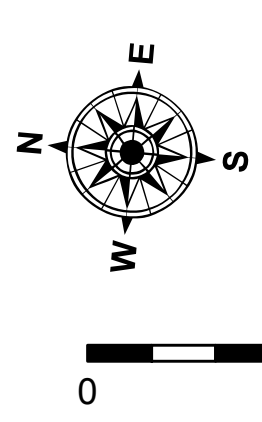
U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT		
Submitted:	Surveyed By: RYLAND/ADAMS	Plotted By: BD
Recommended:	Chief, Survey Section	Checked By: AC
Approved:	Chief, Waterways Maintenance Section	

**CALCASIEU SHIP CHANNEL
BAR SHEET 28
CR_28_BAR_20200731_CS
31 July 2020**

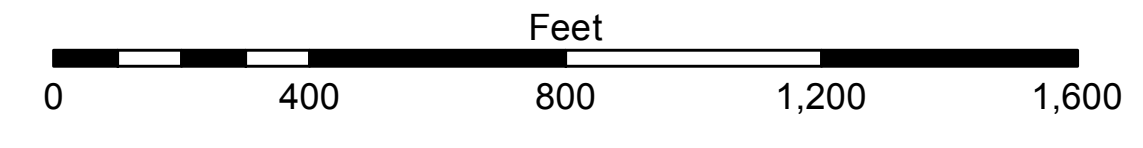
**Sheet Reference Number
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LEGEND			
--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*	-16' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	-16' to -21'
— As-built Pipeline/Cable	⊗ Anchorage Area	★ 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: CAMERON: 2.36 MLLW AVG.
Sea Conditions: 2-3 FT.
Vessel Name: MV VALENTOUR
Survey Type: CS
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: Sounding Datum: CAMERON: 2.36 MLLW AVG. 2-3 FT.
Datum Relationships for gage 73650 as of December 2013: 0.0' NAVD88 (2009.55) = 1.3' MLLW = 2.3' 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.