

US Army Corps of Engineers District: CEMVN

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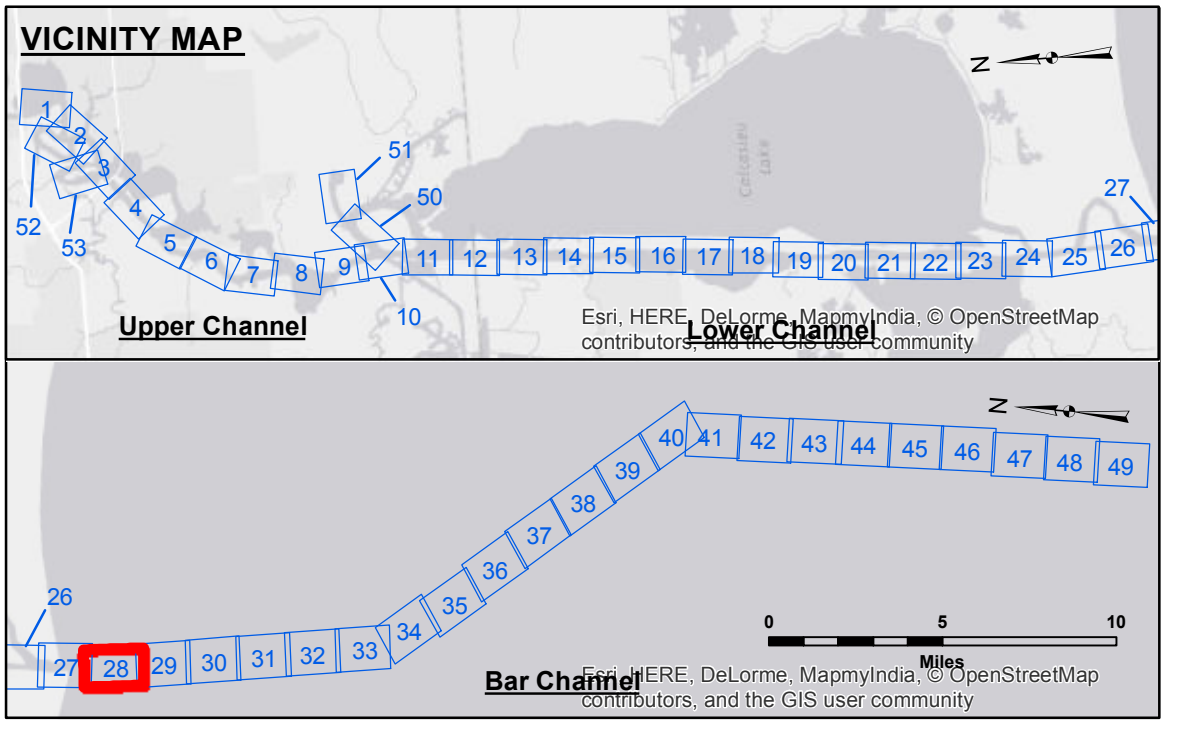
Data Accuracy: Hydrographic survey data is subject to change due to several factors including but not limited to changing bathymetry, sedimentation, and other factors. The user is responsible for the use of the data for the intended purpose. The user is responsible for the use of the data for the intended purpose.

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The information depicted on this map represents the results of a survey conducted on the date shown. It is not intended to represent the general condition existing at that time.

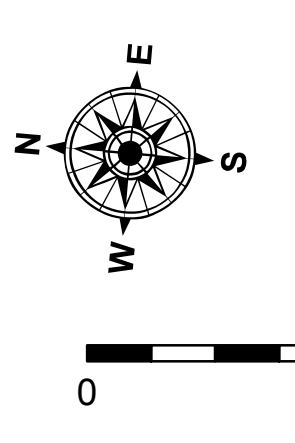
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|------------------------------------------------------|------------------------|--|
| U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT | | |
| Submitted: | Surveyed By: JA, JH | |
| Recommended: Chief, Survey Section | Plotted By: AO | |
| Approved: | Checked By: AO | |

**CALCASIEU SHIP CHANNEL
 BAR SHEET 28
 CR_28_BAR_20170831_CS_POSTSTORM
 31 August 2017**

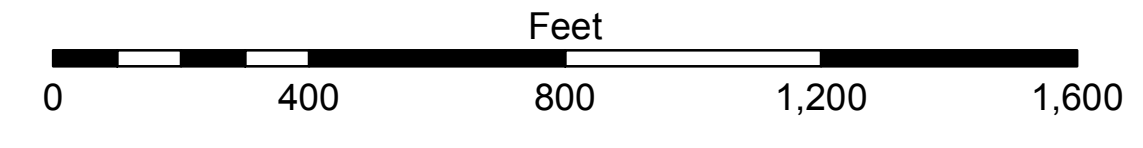


LEGEND

| | | | |
|--------------------------------|-------------------|-------------------------|----------------|
| Federal Navigation Channel | Cable Area | Fluff Thickness (feet)* | -15' and above |
| Federal Navigation Center Line | Placement Area | Shoalest Sounding** | -15' to -20' |
| As-built Pipeline/Cable | Anchorage Area | Beacon, General | -20' to -25' |
| Unconfirmed Pipeline/Cable | Obstruction Point | Red Navigation Buoy | -25' to -32' |
| Project Depth Contour | Wrecks-Submerged | Green Navigation Buoy | -32' to -38' |
| | | | -38' to -40' |
| | | | -40' to -42' |
| | | | -42' and below |



Gage Reading: CAMERON: 2.1 MLG
 Sea Conditions: 3-5' SEAS
 Vessel Name: MV TECHE
 Survey Type: CONDITION
 Sounding Frequency***: 24 kHz



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 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.

**Sheet Reference Number
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