

US Army Corps of Engineers District: CEMVN

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Submitted:	SR, JH
Reviewed:	AO
Checked:	AO

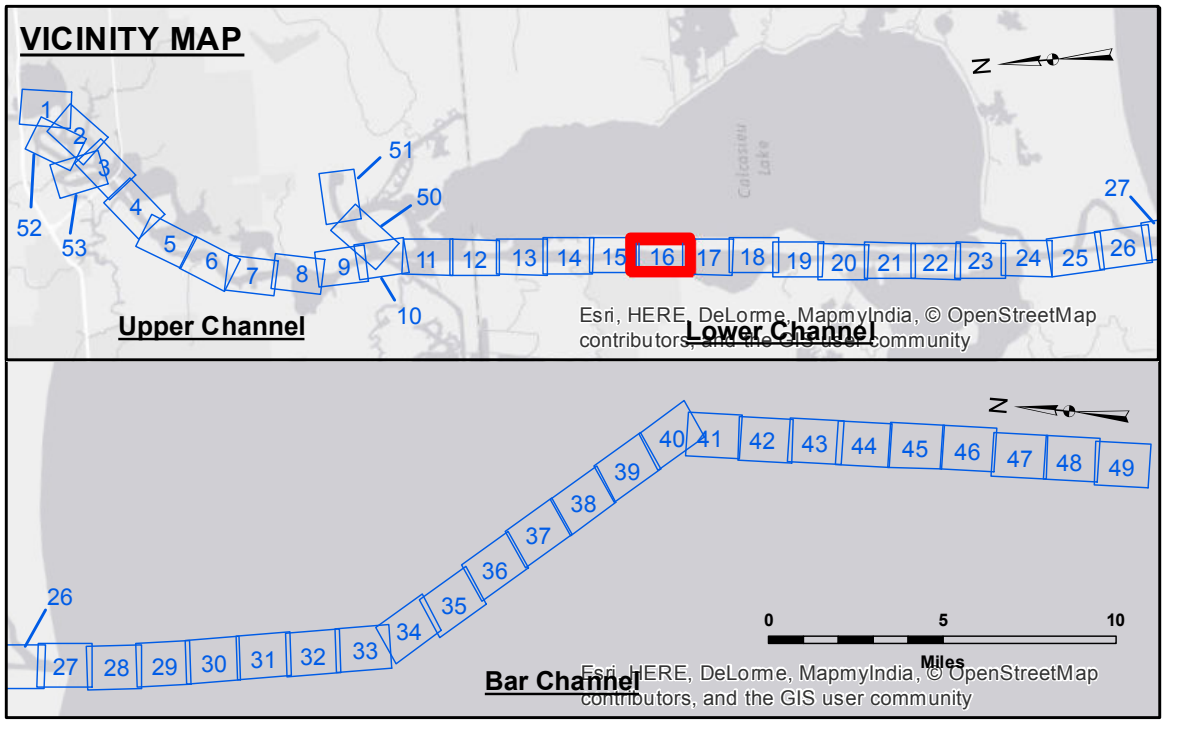
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

Chief, Survey Section

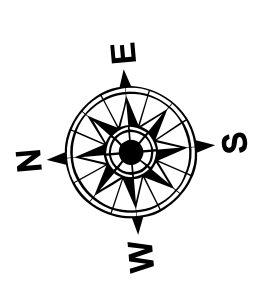
Chief, Waterways Maintenance Section

**CALCASIEU SHIP CHANNEL
LOWER SHEET 16
CR_16_LWR_20161005
05 October 2016**

**Sheet Reference Number
16 of 53**



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
★ Beacon, General	◆ Green Navigation Buoy



Gage Reading: HACKBERRY: 2.8 MLG AVG
Sea Conditions: CALM
Vessel Name: MV TECHE
Survey Type: CONDITION
Sounding Frequency***: LOW

Feet
0 400 800 1,200 1,600

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 73600 as of December 2013: 0.0' NAVD83 (OPUS 2010) = 1.0' MLLW = 2.0' 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 base 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.