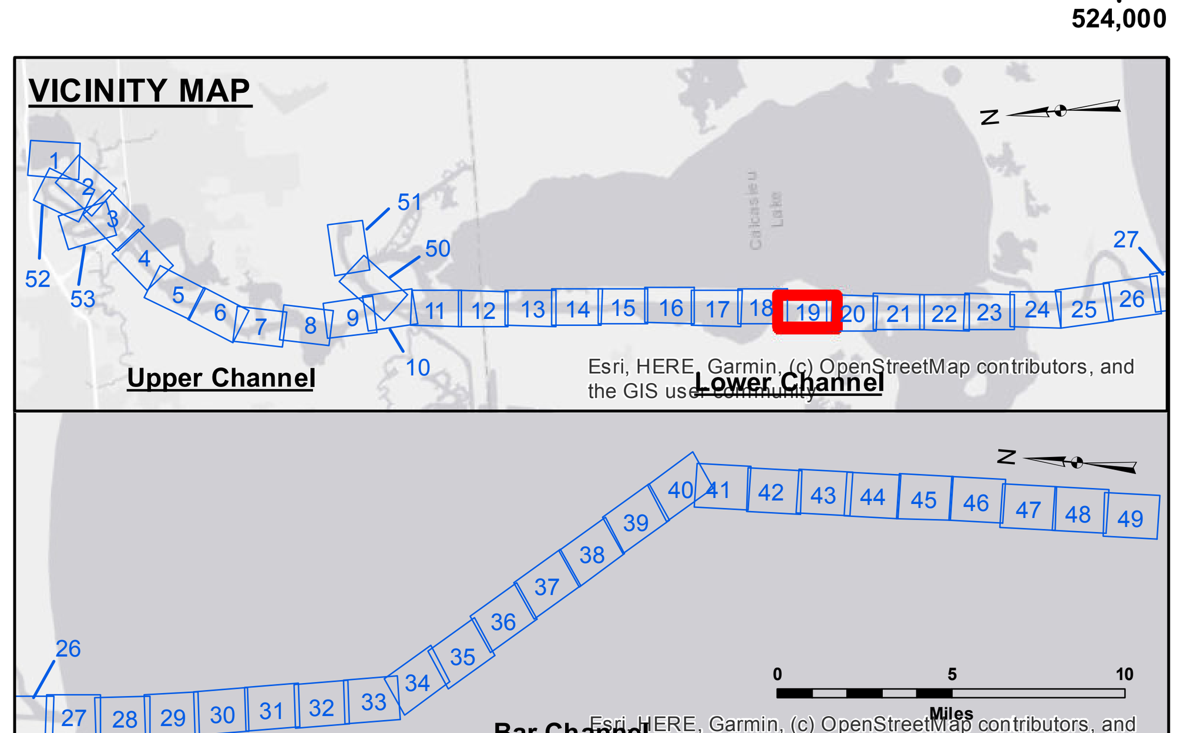
US Army Corps of Engineers
District: CEMVN

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

Surveyed By: SP,PM
Plotted By: BD
Checked By: AO

Submitted:
Recommended: Chief, Survey Section
Approved: Chief, Waterways Maintenance Section

CALCASIEU SHIP CHANNEL
LOWER SHEET 19
CR_19_LWR_20210930_CS
30 September 2021



LEGEND

- Federal Navigation Channel
- Federal Navigation Center Line
- As-built Pipeline/Cable
- Unconfirmed Pipeline/Cable
- Project Depth Contour
- Cable Area
- Placement Area
- Anchorage Area
- Obstruction Point
- Wrecks-Submerged
- 3 Fluff Thickness (feet)*
- Shoalest Sounding**
- Beacon, General
- Red Navigation Buoy
- Green Navigation Buoy
- -16' and above
- -16' to -21'
- -21' to -26'
- -26' to -33'
- -33' to -39'
- -39' to -41'
- -41' to -43'
- -43' and below

Gage Reading:	HACBERRY: 2.45 MLLW
Sea Conditions:	CALM
Vessel Name:	OB-167
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 Lower Low Water Datum (MLLW).
Datum Relationships for gage 73615 as of December 2013:
0.0' NAVD88 (2009.55) = 1.1' MLLW = 2.1' 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 consoldiated bottom material. Low frequency accuracies may vary depending on channel conditions and fathometer settings.

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