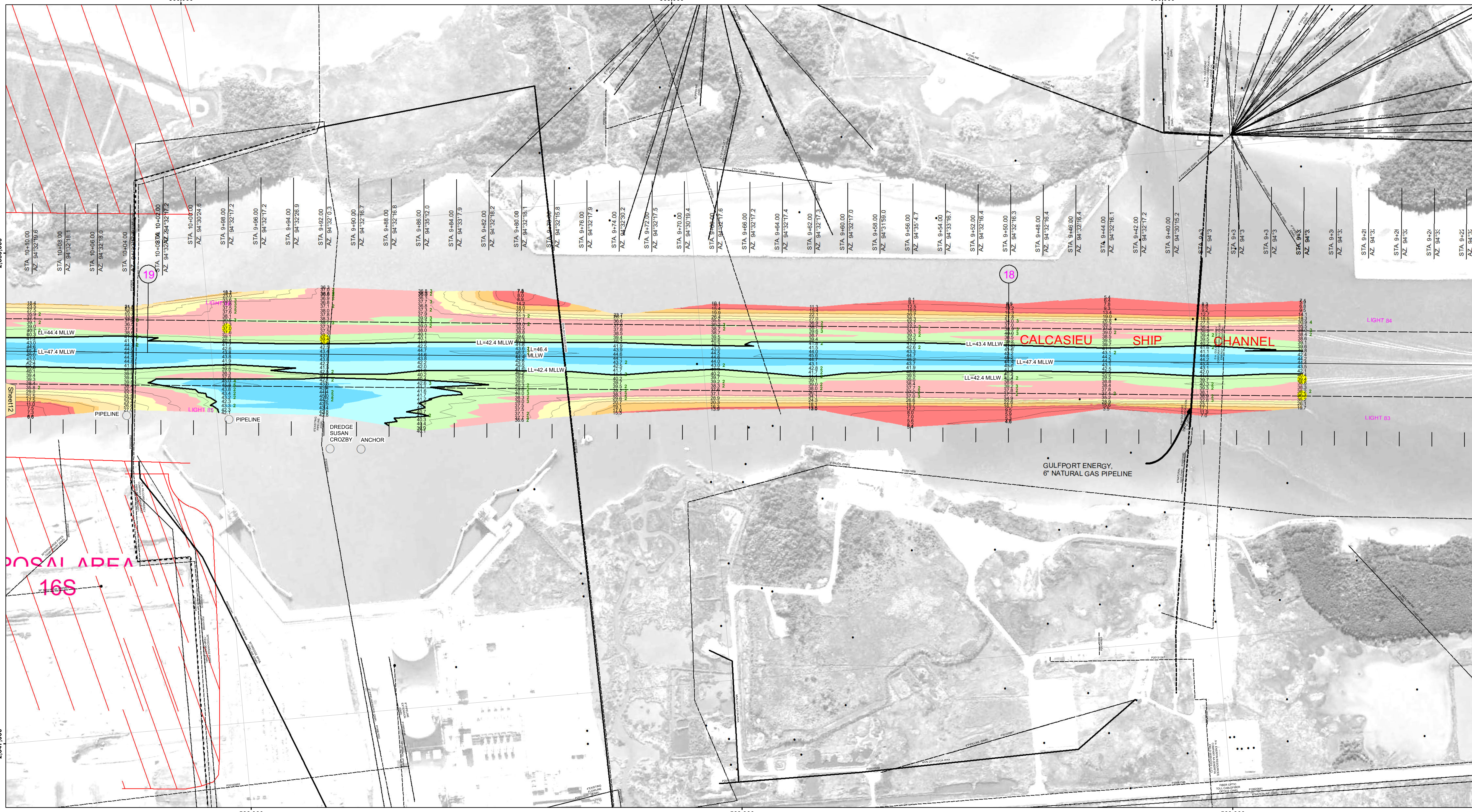

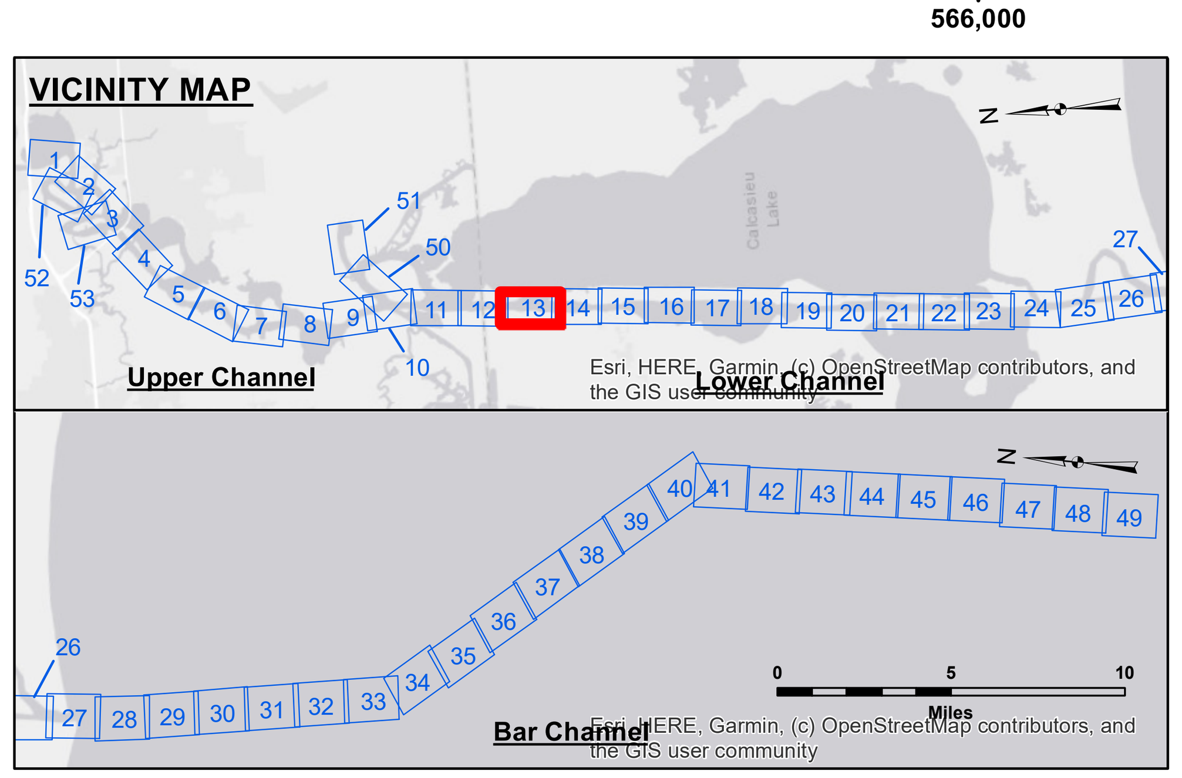

LEGEND

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:	DM86: 1.75 MLLW
Sea Conditions:	CHOP
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 73595 as of December 2013:
0.0' NAVD88 (OPUS 2013) = 0.9' MLLW = 1.9' 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.

US Army Corps of Engineers
District: CEMVN

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The information depicted on this map represents the results of a survey conducted on the date indicated and can only be considered to represent the general condition existing at that time.

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Data Constraints: Hydrographic survey data is subject to change rapidly due to several factors including but not limited to dredging activity and natural shoaling and scouring processes. The U. S. Army Corps of Engineers accepts no responsibility for changes in the hydrographical conditions which develop after the date of publication. This data is intended for U. S. Army Corps of Engineers' internal use. Prudent mariners should not rely solely upon it.

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NEW ORLEANS DISTRICT

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

Surveyed By: SP,DS
Plotted By: AO
Checked By: AO

CALCASIEU SHIP CHANNEL
LOWER SHEET 13
CR_13_LWR_20191127_CS
27 November 2019

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