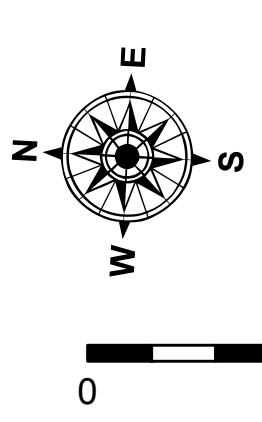


LEGEND

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: RNG E: 1.1 MLG
 Sea Conditions: CALM
 Vessel Name: OB-167
 Survey Type: CONDITION
 Sounding Frequency***: LOW

Vertical Datum:
 Soundings are shown in feet and indicate depths below Mean Low Gulf Datum (MLG).
 Datum Relationships for gage 73575 as of December 2013:
 0.0' NAVD88 (OPUS 2013) = 0.8' MLLW = 1.8' 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.



DISCLAIMER
 The information depicted on this map represents the results of a survey conducted by the United States Army Corps of Engineers. The data represents the results of a collection of data for a specific US Army Corps of Engineers project. The data is not intended for use in any other project. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose.

U.S. ARMY CORPS OF ENGINEERS
 NEW ORLEANS DISTRICT

Submitted:	Surveyed By:	Plotted By:	Checked By:
	PM, JH	AO	AO
Recommended:	Chief, Survey Section		
Approved:	Chief, Waterways Maintenance Section		

CALCASIEU SHIP CHANNEL
UPPER SHEET 9
CR_09_UPR_20170216
16 February 2017

Sheet Reference Number
9 of 53

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