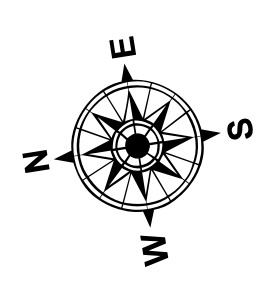


LEGEND			
--- Federal Navigation Channel	○ Cable Area	3 Fluff Thickness (feet)*	■ -16' and above
— Federal Navigation Center Line	□ Placement Area	● Shoalest Sounding**	■ -16' to -21'
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General	■ -21' to -26'
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	■ -26' to -28'
— Project Depth Contour	⊙ Wrecks-Submerged	◆ Green Navigation Buoy	■ -28' to -34'
			■ -34' to -36'
			■ -36' to -38'
			■ -38' and below



Gage Reading: LAKE CHARLES: 1.0 MLLW
 Sea Conditions: CALM
 Vessel Name: M/V LAFORCHE
 Survey Type: CONDITION
 Sounding Frequency***: LOW

Vertical Datum:
 Soundings are shown in feet and indicate depths below Mean Lower Low Water (MLLW).
 Datum Relationships for gage 73550 as of December 2013:
 0.0 NAVD88 (OPUS 2010) = 0.6' MLLW = 1.6' 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. 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.

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 (MLLW).
 Datum Relationships for gage 73550 as of December 2013:
 0.0 NAVD88 (OPUS 2010) = 0.6' MLLW = 1.6' 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.

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U.S. ARMY CORPS OF ENGINEERS NEW ORLEANS DISTRICT		
Submitted:	Surveyed By: PS, JH	Checked By: AC
Recommended:	Plotted By: BD	
Approved:	Chief, Survey Section	
	Chief, Waterways Maintenance Section	

**CALCASIEU SHIP CHANNEL
 UPPER SHEET 1
 CR_01_UPR_20180228_CS
 28 February 2018**

**Sheet Reference Number
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