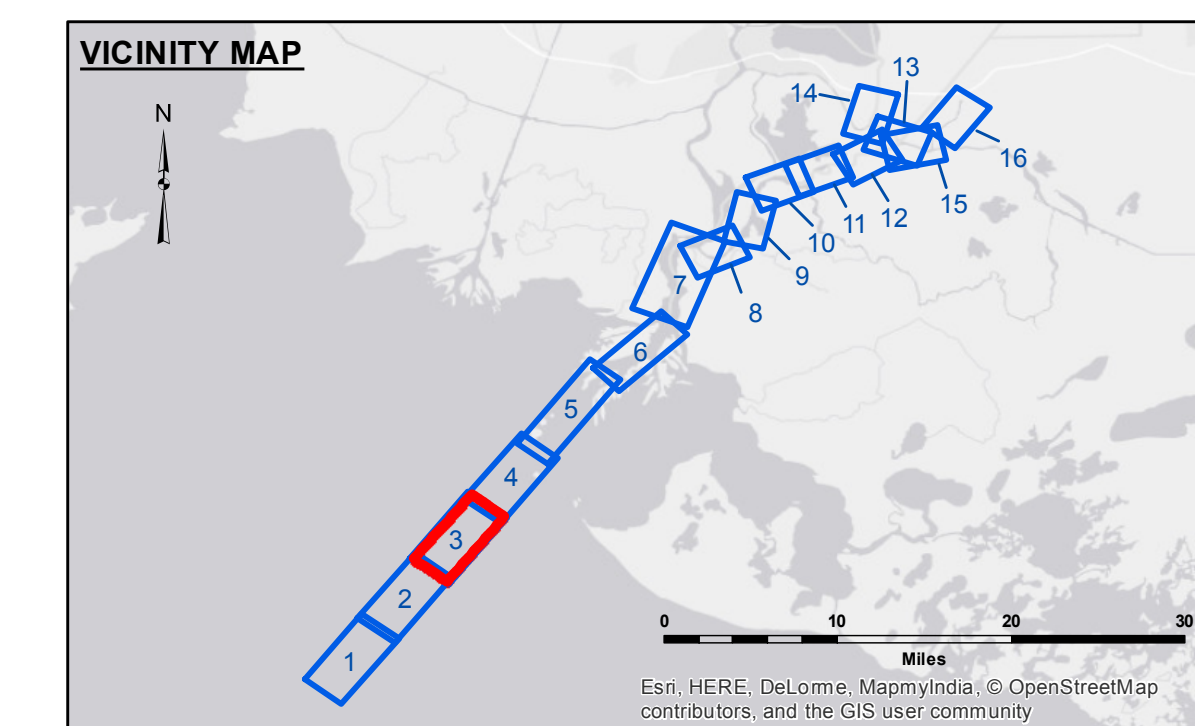
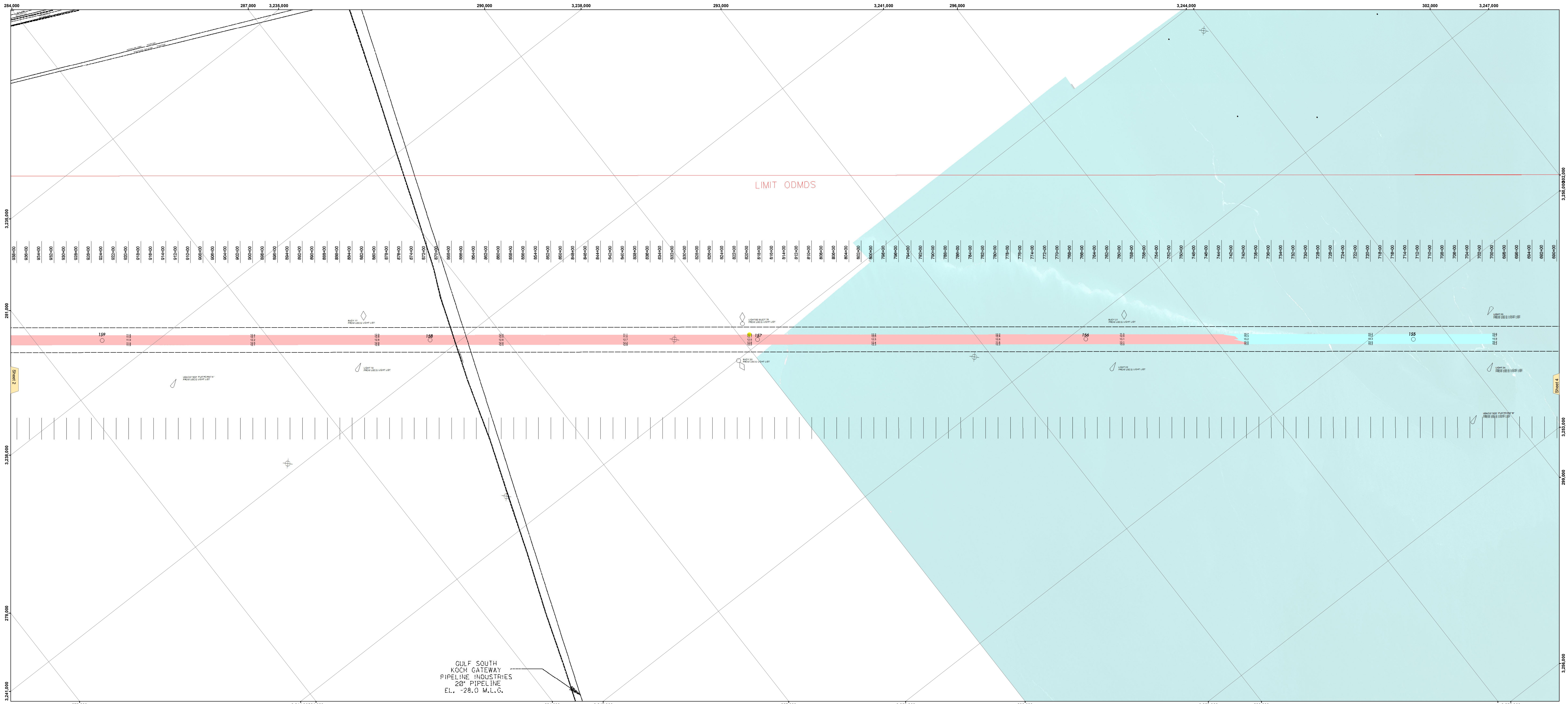




US Army Corps of Engineers District: CEMVN



GULF SOUTH KOCH GATEWAY PIPELINE INDUSTRIES 20" PIPELINE EL. -28.0 M.L.G.

**LEGEND**

--- Federal Navigation Channel	--- Cable Area	□ Borrow Area	■ -15' and above
— Federal Navigation Center Line	■ Placement Area	● Shoalest Sounding**	■ -15' to -20'
— As-built Pipeline/Cable	□ Anchorage Area	★ Beacon, General	■ -20' and below
..... Unconfirmed Pipeline/Cable	⊗ Obstruction Point	◆ Red Navigation Buoy	3 Fluff Thickness*
— Project Depth Contour	⚓ Wrecks-Submerged	◆ Green Navigation Buoy	

This data was collected in cooperation with the Port of Morgan City. The Port of Morgan City is not responsible for errors or omissions contained in this data set.

Gage Reading: EUGENE ISLAND: 2.5 MLG  
 Sea Conditions: CALM  
 Vessel Name: MC OB  
 Survey Type: MC RHEOTUNE  
 Sounding Frequency: N/A

Vertical Datum: Mean Low Water  
 Horizontal Datum: NAD83

Scale: 1" = 800'

**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: Mean Low Water  
 Datum Relationships for the gage 88600 as of August 2013: 0.0' NAVD83 = 0.0' MLLW = 1.5' MLG  
 Distances on the Atchafalaya River are shown at 1 mile intervals.  
 The location of navigation aids are shown and provided by the U.S. Coast Guard.  
 2013 Aerial Photography data source: GEOCLIP, Atlantic Group, LLC. (1998 DOQQ imagery in green).  
 Reference is N.O.A.A. Navigation Chart No. 11354.  
 \* 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 bathymetry settings.

**DISCLAIMER:** The United States Government neither warrants nor makes any representation as to the accuracy, reliability, or completeness of the information contained herein. The user assumes all responsibility for the use of the information contained herein. The user shall indemnify and hold the United States Government harmless from and against all claims, damages, and expenses, including reasonable attorneys' fees, that may be asserted against or incurred by the United States Government as a result of the use of the information contained herein. The user shall also hold the United States Government harmless from and against all claims, damages, and expenses, including reasonable attorneys' fees, that may be asserted against or incurred by the user as a result of the use of the information contained herein.

U.S. ARMY CORPS OF ENGINEERS  
 NEW ORLEANS DISTRICT

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Checked By:	AO
Approved:	AO

**ATCHAFALAYA RIVER  
 BAR CHANNEL DENSITY SURVEY  
 AR\_03\_DEN\_20170914\_CS  
 14 September 2017**