U.S. ARMY CORPS OF ENGINEERS 551,000 545,000 548,000 HAH US Army Corps of Engineers District: CEMVN DISPOSAL AREA "D" **DISPOSAL AREA 23** HACKBERRY - 73600 (0.0' NAVD88 = 1.0' MLLW = 2.0' MLG) CAMERON PARISH OWER SH 5_LWR_20 19 April 3 551,000 548,000 545,000 CALCASIEU NOTES: Horizontal Coordinate System: North American Datum of 1983 (NAD83), projected to the State Plane VICINITY MAP Coordinate System (SPCS), Louisiana South Zone. Distance units in U.S. Survey Feet. **LEGEND** Vertical Datum: -16' and above HACKBERRY: 1.10 MLLW Soundings are shown in feet and indicate depths below Mean Lower Low Water Datum (MLLW). Datum Relationships for gage 73600 as of December 2013:

0.0' NAVD88 (OPUS 2010) = 1.0' MLLW = 2.0' MLG or 0.0' MLLW = 1.0' MLG Gage Reading: 3 Fluff Thickness (feet)* Sea Conditions: -16' to -21' CALM --- Federal Navigation Channel Cable Area M/V LAFOURCHE Vessel Name: -21' to -26' — Federal Navigation Center Line Placement Area Shoalest Sounding** Distances on the Calcasieu River are shown at 1 mile intervals. Survey Type: CONDITION -26' to -33' Esri, HERE, Garmin @ OpenStr the GIS user Channel Sounding Frequency***: LOW The location of navigation aids are base on and provided by the U.S. Coast Guard **Upper Channel** As-built Pipeline/Cable Anchorage Area Beacon, General -33' to -39' and USACE survey crews. -39' to -41' ∅ Obstruction Point Unconfirmed Pipeline/Cable 2015 Aerial Photography data source: NAIP 40 41 42 43 44 45 46 47 48 49 Red Navigation Buoy Sheet -41' to -43' Reference is N.O.A.A. Navigation Chart No. 11339. Wrecks-Submerged — Project Depth Contour Reference -43' and below Green Navigation Buoy 400 1,200 * Difference between high and low frequency elevations where greater than 1.0'. Number ** Shoalest Sounding per Quarter per Reach. 15 **of** 53 *** 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) Revison Number: 3.12-20160811 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