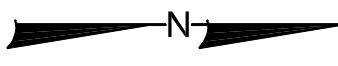


EMPIRE STUDY AREA

EMPIRE SAND DEPOSIT AREAS



0 1000 2000
GRAPHIC SCALE IN FT

- NOTES:**
1. THE SIDE SCAN AND BATHYMETRIC SURVEY WAS PERFORMED BETWEEN AUGUST 5, 2002 AND AUGUST 15, 2002.
 2. THE COORDINATES SHOWN HEREON ARE IN FEET AND ARE BASED ON THE LOUISIANA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM 1983.
 3. VESSEL POSITIONING WAS OBTAINED BY A TRIMBLE, REAL-TIME DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS) UTILIZING THE U.S.C.G. NAVBEACON AT ENGLISH TURN, LA.
 4. SIDE SCAN SONAR DATA WAS ACQUIRED USING A KLEIN 590 DUAL FREQUENCY TOW/FISH OPERATING AT 500KHZ AND 100KHZ.
 5. SUBMERGED FEATURES AND SEAFLOOR CLASSIFICATIONS, AS DEPICTED ON THE CHARTS, HAVE BEEN DESCRIBED BASED UPON THEIR APPARENT PHYSICAL CHARACTERISTICS THROUGH INTERPRETATION OF SIDE SCAN SONAR TECHNOLOGY. GROUND TRUTHING IS RECOMMENDED TO CONFIRM THE RESULTS OF THE INTERPRETATION EFFORTS.
 6. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF THE SURVEY ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

FIGURE 8B
EMPIRE AREA
SIDE-SCAN SONAR MOSAIC

COASTAL PLANNING & ENGINEERING, INC.
 2481 NW BOCA RATON BLVD.
 BOCA RATON, FL 33431