

May, 2016- **Marine Geological Investigation in Federal Waters Released.**

SAISSA, Inc., announces the release of a study by its coastal engineering consultant, Olsen Associates, Inc., describing sand features lying offshore of Nassau County, FL, in Federal waters. This limited study was performed to better understand the regional geology of Amelia Island and evaluate potential new sources of sand for future beach nourishment projects along the South Amelia Island shoreline. SAISSA authorized the study following exhaustive desktop surveys of existing geological and geophysical research dating back 50 years. These data suggested the presence of offshore deposits of Pleistocene-era quartz material in shoal and ridge features lying parallel to shore in 30 to 40 ft. of water.

Prior research had not directly sampled these areas. Published geologic 'models' for the offshore area indicated numerous features where paleochannels (prior locations of river beds and inlets) reached the ocean several miles offshore from the current shoreline location. This occurred at a time when sea level was tens of meters below the present day level. These paleochannels typically contain silty or muddy sediments that infilled the river channels as sea levels rose. The adjacent, now-drowned river bank and inlet shoal areas frequently contain relatively cleaner, coarser sand materials.

In October 2015, a marine geotechnical crew collected and analyzed thirteen shallow seabed sediment Vibracores up to 20 ft. in length. Between December 2015 and March 2016, a hydrographic survey crew collected high-resolution multibeam bathymetric surveys of some of the more distinct shoal locations where Vibracores were taken. In total, approximately three square miles of the seabed were mapped by the high-resolution survey. These data found small-scale irregular ridge and mound deposits of fine, sandy material on top of much larger-scale shore -parallel ridges of muddy and silty deposits.

Due to the irregular nature of the sandy deposits and the overall fine-grained nature of the sand itself, combined with the specific offshore location of the deposits relative to the SAISSA shoreline, further investigation of the area for potential beach nourishment borrow areas is not recommended at this time.

A complete copy of the Report and appendices may reviewed by clicking [**here.**](#)