

## *Natural Gas Pipeline (Permitting)*

P. E. LaMoreaux & Associates, Inc. (PELA) coordinated permitting activities in U.S. waters for installation of a natural gas pipeline from the Bahamas to Port Everglades, Florida. Since the pipeline route was to cross sensitive underwater environs in its approach to the east coast of Florida, the pipe was to be placed below the seafloor using horizontal directional drilling (HDD) techniques.

The project required approval of local, state, and federal authorities. Permit applications were prepared and submitted to the regulatory authorities by PELA on behalf of the pipeline owner. Permits for the necessary geotechnical drilling were obtained from the Florida Department of Environmental Protection, the U.S. Army Corps of Engineers, and Broward County, Florida, with input from a number of other regulatory agencies.

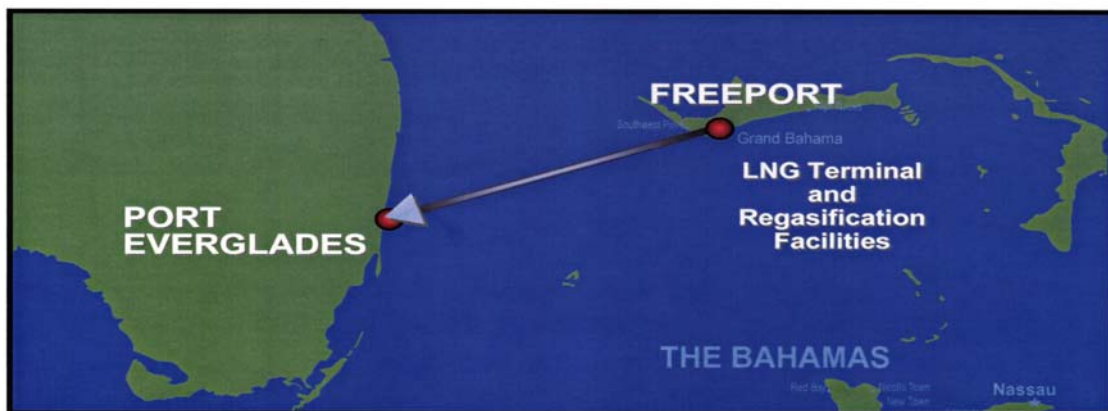
Selected by the pipeline owner to perform the geotechnical drilling and analysis, PELA prepared the geotechnical drilling plan to evaluate the subsurface geology in the areas

of proposed HDD pipeline installation. PELA assembled a team of professionals to perform the geotechnical assessment.

PELA developed its work plan to meet the permit's zero discharge requirements to protect sensitive biologic communities. Divers were contracted to evaluate each drilling location to insure the least amount of impact to the seafloor.

The team included a specially trained marine biologist to insure that the drilling activities had no effect on manatees, sea turtles, and other endangered or threatened sea life. Videographers were contracted to meet permit requirements that all in water activities be videotaped to document the environmental protection measures observed during drilling.

The project scope also required daily project summaries and updates to be delivered to the client via electronic communication so the client would be aware of the progress of the project.



*Locations of Proposed Gasline Surface Facilities*