

## **Drilling Supply Base Dock Dartmouth, Nova Scotia**



This project was a design/build/operate contract for Offshore Logistics Inc., a unit of Secunda Marine Services Limited. *ACCENT* Engineering Consultants Inc. acted as engineers, BFC Civil as constructors and Offshore Logistics as operators. *ACCENT* provided all the engineering for concept, preliminary and final design, and services during construction.

The dock had to be constructed according to an extremely short time schedule. A concept design had been prepared for the bid. Final design was begun on November 15, 1997, with the first piles driven on December 18, 1997; the dock was ready to support drilling operations on April 15, 1998, on time and on budget.

The dock is a 65 m long by 21 m wide marginal wharf with 510 mm diameter concrete-filled pipe piles and a concrete superstructure. The design incorporates precast concrete panels as permanent forms

for the bottom of the deck system and for the solid seaward face in order to minimize construction time and avoid winter concreting delays.

Piles were driven through an existing timber dock, which was subsequently removed as work progressed. Cast-in-place pile cap beams were the only concrete elements formed over water. The deck consists of precast panels with a cast-in-place topping slab. The deck has three areas, which were strengthened to support the loads from a 250-ton mobile crane. The fender system utilized foam-filled floating fenders and rubber cylindrical fenders.

Dock services include an electrical jetty mount, providing 440 V, 200 A shore power for two supply boats and a water line capable of loading 100 tons of water per hour, with a backflow preventer and pressure-sustaining system.