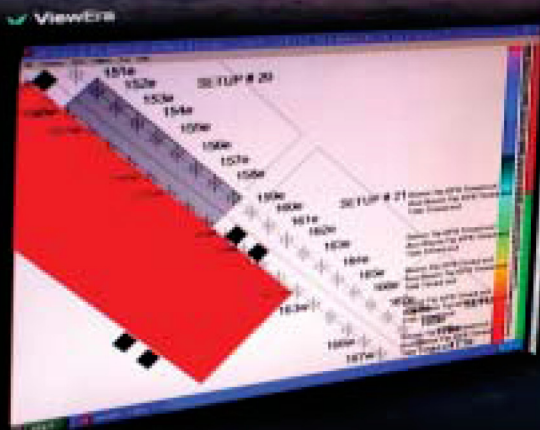


# World DREDGING

M i n i n g & C o n s t r u c t i o n

May 2007

**DEAN CONSTRUCTION'S JACK-UP DRILLBARGE  
ON LAKE ONTARIO, CANADA  
UTILIZING CLAMVISION POSITIONING  
SOFTWARE. (SEE STORY ON PG. 4)**



## ELECTRICAL & MONITORING SYSTEMS

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## On - the - Cover

The *Burloak Water Intake Project* for **Regional Municipality of Halton** on Lake Ontario, is approx. 15 km east of **Hamilton, Ontario, Canada**. The general contractor is **C & M McNally Engineering Corp.** of Burlington, Ontario, Canada who is performing tunneling. The marine work is being performed by **Dean Construction Co. Ltd.** of Lasalle, Ontario, Canada. The design and consulting engineer for McNally & Dean R.V. is **Anderson Associates Ltd.** of Toronto Ont. The concrete pipe supplier is **Munro Concrete Products Ltd.** of Utopia, Ontario, the blasting consultant is **Explotech Engineering** of Napean, Ontario; and the explosives supplier is **Austin Powder Ltd.** of Toronto, Ont.

### The marine work consists of the following:

- 1- Drill a 3.5 m dia. shaft through shale from the lakebed down to the future tunnel grade;
- 2- Install a vertical riser in the shaft to connect the tunnel to the 1800 mm (6.0 ft) inside dia. concrete intake line;
- 3- Install temporary plugs in the riser shaft to allow tunnel to intersect the riser in the dry;
- 4- Drill, blast and excavate a 1060 m (3500 ft) long trench in rock 4.0 m wide X 4.0 m deep;
- 5- Haul dredged rock to a deep water dump site in Lake Ontario;
- 6- Install bedding and cover of the concrete pipe;
- 7- Install of a prefabricated reinforced concrete intake structure.

Drilling and blasting is being carried out from a **Flexifloat** jackup barge. Positioning of the drill barge and drill towers is done using 2.0 cm positioning (4 units) *CLAMVISION* mounted on each of the drill towers. The dredging and pipe laying barge also use *CLAMVISION* technology to achieve very accurate positioning. The work was carried out under very strict environmental controls with restrictions on the in water work time window, water turbidity, fish kill per blast and in total.

In shallower water (less than 10 m or 33 ft deep) an air curtain was used to contain the turbidity caused by drilling and blasting, deter fish from entering the area, and minimize the fish kill from blasting. Various techniques were used to scare fish from the blast area. Turbidity outside the curtain as well as any fish kill have been well below the specified limits

As of June 14, 2007, drilling and blasting for the trench and intake structure is about two weeks from completion. Trench excavation and pipe laying are about 35% complete and about one month from completion. [www.dean-construction.com](http://www.dean-construction.com) (See *Cable Arm* ad pg. 32) ○