

Project: **Townsville Marine Project – Harbour Dredging**

Principal:

Port of Townsville Limited

Principal Contractor:

Townsville Marine Precinct Alliance (Port of Townsville & Laing O'Rourke)

Location:

Benwell Road, Townsville

Contract Value:

\$6,000,000

Completion Date:

April 2011



Stage 1 of the Townsville Marine Precinct was an \$88 million dollar extension of the Port of Townsville, designed to establish a world class facility for marine related industries.

This was a design and construct project completed as an alliance with the Port of Townsville Limited and Laing O'Rourke (LORAC).

Scope of Work:

Neumann Contractors scope included the dredging of approx. 30,000m³ from the Ross River Channel to clear shoaling and using this material for initial land reclamation, and the dredging of 410,000 m³ of hard and very hard clays of up to 400 Kpa from the new marina basin. The dredged material was pumped up to 700 metres and used for land reclamation purposes.

The operation was completed on a 24 hour, 6 day a week basis.

Innovations:

Neumann Contractors had been working on an experimental Inline Lime Injection System (ILIS) that mixed Ag Lime to the dredged material whilst still in the dredge slurry pipeline. The ILIS was set up on the project for injecting the lime at a predetermined rate which then mixed with the PASS materials being dredged.

After some initial trials, the ILIS proved to be successful in injecting the predetermined amount of lime at the required dosing rate into the dredge pipeline for neutralisation of PASS materials that were dredged from the Marina basin.

Challenges:

- ◆ Dredging stiff, very stiff and hard clays.
- ◆ Coordinating dredging activities with other contractors.
- ◆ Working in partially open waters during most of the project.
- ◆ Completing the dredging programme on time whilst removing difficult materials.



Dredge **Nu-Endeavour – Cutter Suction Dredge**
 Length **39.6m (LOA)** Gross Weight **200tonne**
 Pipe Dia. **450mm** Digging Depth **15.0m (max)**

