



## ASX ANNOUNCEMENT

19 October 2011

ASX: NTM

# APPROVAL FOR ACOUSTIC AND RESISTIVITY SUB-BOTTOM PROFILING

### KEY POINTS

- **Important step in planned exploration program**
- **Work expected to commence before end of year**
- **Program to investigate targeted areas identified from new interpretations generated from earlier 'habitat' survey**

Northern Manganese Limited (ASX: NTM - "Northern Manganese" or "the Company") is pleased to announce that it has received formal approval to undertake the planned Acoustic and Resistivity Sub-Bottom Profiling Survey over tenements EL27523 and EL27560 that are situated immediately adjacent to Groote Eylandt and just west of the manganese mining operations of the BHP Billiton controlled GEMCO operation.

The application for what is commonly referred to as "EPBC", was prepared under the direct supervision of the Company's environmental consultant, Assoc. Professor Peter Waterman. The application, now approved, replaces an earlier company "EPBC" proposal that was withdrawn on the advice of Mr Waterman.

The current application, and approval, is a far more focussed approach to the marine survey and is being designed to take advantage of latest technical advice generated from the earlier 'habitat' survey. The map on page 3 of this Announcement identifies the zones targeted for this program. Results of the re-modelling, by the CSIRO, of the sea-floor data captured during the 'habitat' survey are being used to define the particular areas that will be our focus in the planned acoustic and resistivity sub-bottom profiling survey.

The Department of Sustainability, Environment, Water, Population and Communities, after considering the Company's application, has determined that we will be granted approval to proceed with our intended work under what is called a REFERRAL DECISION - not controlled action if undertaken in a particular manner. This is a decision made under sections 75 and 77A of the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).

### NORTHERN MANGANESE LIMITED

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Full details of the Department's decision can be viewed on their official website.

Understandably, the Department has applied a series of conditions to their approval including a requirement for the Company to use trained Marine Fauna Observers, on board the survey vessel, to monitor the presence, if any, of marine mammals and marine turtles during the exploration work. It will be important for the survey team to ensure that there are no cetaceans (whales), dugongs or turtles in the vicinity of the acoustic and resistivity work and measures have been prescribed to ensure that such creatures are appropriately protected.

Northern Manganese's Managing Director, Lloyd Jones, said "the Company thoroughly endorses the conditions applied and will instruct its contractors, and staff, to ensure that all of the measures established by the Department are complied with in their entirety".

"From the results we are starting to see from the recently re-modelled data we're very enthusiastic at the potential for the identification of sea-floor manganese deposition during this next survey but we must be very careful that this enthusiasm doesn't encourage short-cuts that might adversely impact on the marine environment in which we will be working."

From the published technical data available on the Groote Eylandt manganese deposits it is believed the manganese was formed in shallow marine conditions during periods of high sea level and simultaneous anoxic environments in an adjacent black shale basin. This suggests that any manganese ore that may now lie on or beneath the seafloor adjacent to the western margin of Groote Eylandt will be unaffected by its submersion. The sedimentary and tabular nature of the manganese deposits and their interpreted shallow extensions dip towards the west and to the south has led to the suggestion that manganese mineralisation may occur beneath the shallow sea floor.

The Company is now working with the assistance of its consultants, Assoc. Professor Peter Waterman and Geologist, Nat Cull, to organise the various vessels, personnel and logistics needed to undertake the field work, and data capture. It is our intention that this work will get underway as soon as possible - hopefully by December - so that any early discoveries needing further field examination can be followed up within the allocated period allowed under the EPBC approval.

This work will be planned under advisement and with full monitoring of the weather as we enter our northern wet season. Mr Jones said "We will have no hesitation in postponing any planned field work if our risk assessments show any possibility of an early cyclone before December."



**Lloyd Jones**  
**Managing Director**



