

# Browns Range Moving Towards Decision to Invest

Northern Minerals (ASX: NTU; the Company) is pleased to provide an update on activities being undertaken with respect to development of its 100% owned Browns Range Rare Earths Project in northern Western Australia.

The Company is focused on the delivery of the heavy rare earth element, dysprosium, an element integral in permanent magnets and used extensively in electric motors and wind turbines.

Northern Minerals is proposing to develop a Pilot Plant at Browns Range as Stage 1 of a three stage process to fully commercialise the project. The proposed Pilot Plant will operate at 10% of the full scale plant for a period of three years.

The Company is in the final stages with regards to making a Final Investment Decision later this quarter. Significant progress has been made recently relating to permitting, contracts, drilling and financing, which are detailed below.

Northern Minerals Managing Director, George Bauk, said "The Northern Minerals team has been working tirelessly towards our goal of commissioning of the Pilot Plant by the end of the first quarter 2018.

"As we move towards the Final Investment Decision later this quarter, we are highly encouraged by the support shown for the project and its potential by all of the stakeholders we engage with.

"We firmly believe that the project timing and staging is well aligned to the strong increase in dysprosium demand over the coming years from predicted increased electric vehicle sales."





# Powering Technology.



# Pre-Commitment Works

In November 2016, the Company approved a \$3.4 million budget to undertake various programs for the Browns Range Pilot Plant Project, ahead of a Final Investment Decision in Q1 2017. Significant progress has been made and is detailed below.

## **ENGINEERING & DESIGN**

As noted in ASX announcements (19 December 2016), Northern Minerals has appointed Sinosteel MECC as the EPC Contractor for the Browns Range Pilot Plant Project. Sinosteel MECC has appointed Worley Parsons in Beijing to undertake the detailed design of the Pilot Plant. The process design package is complete and basic design is well underway with final costings expected to be presented to the Board in March 2017.

## INFILL DRILLING

A 2,000m Reverse Circulation (RC) drilling program was completed in late 2016, focused on infill drilling of three of the pilot project pits, the establishment of water monitoring bores as well as exploration drilling on a new prospect called Banshee South. Results from this program are expected in February.



#### MINE PLANNING

The results from the December RC drilling program are expected in February 2017 and will be used to update the geological interpretations and resource estimates of the central, western and eastern Gambit deposits. The mine planning for the Pilot Plant will then be finalised during the March quarter. The Company plans to mine all of the Pilot Project pits in one campaign during 2017, with ore stockpiled for treatment over the proposed three-year Pilot Plant trial period.



### ACCOMMODATION CAMP EXTENSION

The accommodation camp at Browns Range is being expanded from the current 20 rooms up to 48 rooms. The Company acquired suitable second hand accommodation at auction, with considerable saving to the budget. The accommodation units are being transported to Broome during February and will be transported to site and installed in February/March.

#### WATER BORFFIFI D AND PIPFI INFS

The establishment of a water borefield and pipeline, required to provide water for the Pilot Plant construction and operations, is expected to commence in March.

## Human Resources

As the Company prepares for the Final Investment Decision, a number of personnel have been recruited to fill both site based and office based roles.

The Company is pleased that several former Northern Minerals staff members have rejoined the team.

It is expected that a Site Registered Manager will be appointed during February 2017. Other key roles currently being recruited include a pit geologist, mining engineer and administration officer.

# Financing

The Company is working on a number of initiatives for funding of the Browns Range Pilot Project, including equity placements, debt funding, offtake financing and deferred payment structures.

Huatai Mining has made payments of \$19.5 million under a Subscription Agreement.

Sinosteel MECC will defer 20% of the EPC contract costs for a period of 24 months from completion, with the option to convert to equity.

The Company currently has no debt and cash on hand of \$15 million.

# Offtake

The Company is in advanced negotiations with several potential offtake partners for product from Browns Range. Consideration is being given to pricing, reputation, financing assistance options and long term relationship potential.

Northern Minerals expects to select a preferred offtake route in February 2017 with contracts to be executed in March 2017, ahead of the Final Investment Decision.



# Contracts

Northern Minerals is currently assessing tenders and finalising scopes of work for the following contracted activities for the Pilot Plant project.

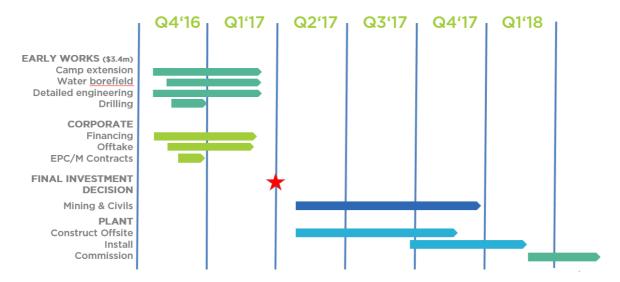
- Mining & Civil includes ore & waste mining, Run-of-Mine (ROM) pad, tailings dam and evaporation pond construction, establishment of an airstrip onsite as well as site preparation for the process plant.
- Air Services chartered aircraft for the Fly-In-Fly-Out (FIFO) workforce.
- Catering & Accommodation Management.

# Government Relations

The Company has undertaken significant effort with regards to Government engagement on all levels. Meetings have been held with key ministries and Government departments and agencies, aimed at ensuring continued support for the project.

# **Project Timetable**

Despite the delays associated with the Huatai Mining investment, the Company is on track for a Final Investment Decision in Q1 2017.



#### **ASX ANNOUNCEMENT**



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### **About Northern Minerals:**

Northern Minerals Limited (ASX: NTU; Northern Minerals or the Company) is focused on the delivery of the heavy rare earth (HRE) element, dysprosium. The Company has a large landholding in Western Australia and the Northern Territory that is highly prospective for this element. Through the development of its flagship project, the Browns Range Project (the Project), Northern Minerals aims to be the first significant world producer of dysprosium outside of China.

The Project is 100% owned by Northern Minerals and has a number of deposits and prospects containing high value dysprosium and other HREs, hosted in xenotime mineralisation. Dysprosium is an essential ingredient in the production of DyNdFeB (dysprosium neodymium iron-boron) magnets used in clean energy and high technology solutions. As a result of increasing global demand for these applications dysprosium supply is critical. The Project's xenotime mineralisation has facilitated the development of a two stage process flowsheet, consisting of a beneficiation and hydrometallurgical plant, to produce a high value, high purity dysprosium rich product.

For more information: <u>northernminerals.com.au</u>.